Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal617sxw

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 3	OCT 19	BEILSTEIN updated with new compounds
NEWS 4	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 5	NOV 19	WPIX enhanced with XML display format
NEWS 6	NOV 30	ICSD reloaded with enhancements
NEWS 7	DEC 04	LINPADOCDB now available on STN
NEWS 8	DEC 14	BEILSTEIN pricing structure to change
NEWS 9	DEC 17	USPATOLD added to additional database clusters
NEWS 10	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS 11	DEC 17	DGENE now includes more than 10 million sequences
NEWS 12	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS 13	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 14	DEC 17	CA/CAplus enhanced with new custom IPC display formats
NEWS 15	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS 16	JAN 02	STN pricing information for 2008 now available
NEWS 17	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 18	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 19	JAN 28	MARPAT searching enhanced
NEWS 20	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 21	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 23	FEB 08	STN Express, Version 8.3, now available
NEWS 24	FEB 20	PCI now available as a replacement to DPCI
NEWS 25	FEB 25	IFIREF reloaded with enhancements
NEWS 26	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS 27	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:38:36 ON 04 MAR 2008

=> file reg
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'REGISTRY' ENTERED AT 12:38:50 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1
DICTIONARY FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> s ja 31
           635 JA
            56 JAS
           691 JA
                 (JA OR JAS)
        135251 31
L1           0 JA 31
                 (JA(W)31)

=> s ja31
L2           8 JA31

=> d 8

L2   ANSWER 8 OF 8  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   306250-24-8  REGISTRY
ED   Entered STN:  01 Dec 2000
CN   DNA (Purple bacteria (Proteobacteria), gamma group strain JA31 16 S
     rRNA gene fragment) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   GenBank AF296143
FS   NUCLEIC ACID SEQUENCE
```

```
MF   Unspecified
CI   MAN
SR   GenBank
LC   STN Files:   CA, CAPLUS, GENBANK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> d 1-7

L2   ANSWER 1 OF 8  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   914765-81-4  REGISTRY
ED   Entered STN:  04 Dec 2006
CN   Protein (hepatitis E virus strain HE-JA31 open reading frame ORF3
     32-amino acid fragment)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   GenBank BAF33042 (9CI)
OTHER NAMES:
CN   GenBank BAF33042 (Translated from: GenBank AB259205)
FS   PROTEIN SEQUENCE
MF   Unspecified
CI   MAN
SR   GenBank
LC   STN Files:   CA, CAPLUS

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2   ANSWER 2 OF 8  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   914765-80-3  REGISTRY
ED   Entered STN:  04 Dec 2006
CN   Capsid protein (hepatitis E virus strain HE-JA31 open reading frame
     ORF2 fragment)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   GenBank BAF33041 (9CI)
OTHER NAMES:
CN   GenBank BAF33041 (Translated from: GenBank AB259205)
FS   PROTEIN SEQUENCE
MF   Unspecified
CI   MAN
SR   GenBank
LC   STN Files:   CA, CAPLUS

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2   ANSWER 3 OF 8  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   914765-79-0  REGISTRY
ED   Entered STN:  04 Dec 2006
CN   RNA (hepatitis E virus strain HE-JA31 capsid protein fragment)
     (CA INDEX NAME)
```

OTHER CA INDEX NAMES:
CN GenBank AB259205 (9CI)
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR GenBank
LC STN Files: CA, CAPLUS, GENBANK

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
RN 894491-58-8 REGISTRY
ED Entered STN: 19 Jul 2006
CN Nonstructural protein (hepatitis E virus strain HE-JA31 clone
    HE-JA31-ORF1-3 open reading frame ORF1 fragment) (9CI) (CA INDEX
    NAME)
OTHER NAMES:
CN GenBank BAE79716
CN GenBank BAE79716 (Translated from: GenBank AB221752)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR GenBank
LC STN Files: CA, CAPLUS

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
RN 894491-57-7 REGISTRY
ED Entered STN: 19 Jul 2006
CN RNA (hepatitis E virus strain HE-JA31 clone HE-JA31-ORF1-3 open
    reading frame ORF1 fragment) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN GenBank AB221752
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR GenBank
LC STN Files: CA, CAPLUS, GENBANK

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2008 ACS on STN
RN 894490-86-9 REGISTRY
ED Entered STN: 19 Jul 2006
CN Nonstructural protein (hepatitis E virus strain HE-JA31 clone
    HE-JA31-ORF1-2 open reading frame ORF1 fragment) (9CI) (CA INDEX

```
     NAME)
OTHER NAMES:
CN   GenBank BAE79680
CN   GenBank BAE79680 (Translated from: GenBank AB221716)
FS   PROTEIN SEQUENCE
MF   Unspecified
CI   MAN
SR   GenBank
LC   STN Files:   CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2   ANSWER 7 OF 8  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   894490-85-8  REGISTRY
ED   Entered STN:  19 Jul 2006
CN   RNA (hepatitis E virus strain HE-JA31 clone HE-JA31-ORF1-2 open
     reading frame ORF1 fragment) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   GenBank AB221716
FS   NUCLEIC ACID SEQUENCE
MF   Unspecified
CI   MAN
SR   GenBank
LC   STN Files:   CA, CAPLUS, GENBANK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> log y
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                34.67      34.88

STN INTERNATIONAL LOGOFF AT 12:42:52 ON 04 MAR 2008


Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:ssspta1617sxw

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS  3  OCT 19  BEILSTEIN updated with new compounds
```

```
 NEWS  4  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS  5  NOV 19  WPIX enhanced with XML display format
 NEWS  6  NOV 30  ICSD reloaded with enhancements
 NEWS  7  DEC 04  LINPADOCDB now available on STN
 NEWS  8  DEC 14  BEILSTEIN pricing structure to change
 NEWS  9  DEC 17  USPATOLD added to additional database clusters
 NEWS 10  DEC 17  IMSDRUGCONF removed from database clusters and STN
 NEWS 11  DEC 17  DGENE now includes more than 10 million sequences
 NEWS 12  DEC 17  TOXCENTER enhanced with 2008 MeSH vocabulary in
                  MEDLINE segment
 NEWS 13  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 14  DEC 17  CA/CAplus enhanced with new custom IPC display formats
 NEWS 15  DEC 17  STN Viewer enhanced with full-text patent content
                  from USPATOLD
 NEWS 16  JAN 02  STN pricing information for 2008 now available
 NEWS 17  JAN 16  CAS patent coverage enhanced to include exemplified
                  prophetic substances
 NEWS 18  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
                  custom IPC display formats
 NEWS 19  JAN 28  MARPAT searching enhanced
 NEWS 20  JAN 28  USGENE now provides USPTO sequence data within 3 days
                  of publication
 NEWS 21  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 22  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
 NEWS 23  FEB 08  STN Express, Version 8.3, now available
 NEWS 24  FEB 20  PCI now available as a replacement to DPCI
 NEWS 25  FEB 25  IFIREF reloaded with enhancements
 NEWS 26  FEB 25  IMSPRODUCT reloaded with enhancements
 NEWS 27  FEB 29  WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                  U.S. National Patent Classification


 NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)
```

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1
DICTIONARY FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10840238.str

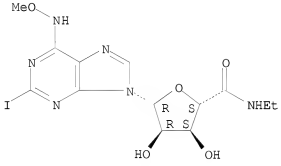
chain nodes :
10 16 17 18 19 21
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15
chain bonds :
4-10 9-11 10-21 13-16 14-18 15-17 16-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-15 12-13 13-14 14-15

exact/norm bonds :
4-10 5-7 6-9 7-8 8-9 9-11 10-21 11-12 11-15 12-13 13-14 14-15 14-18
15-17 16-19
exact bonds :
13-16
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

G1:O,S,N

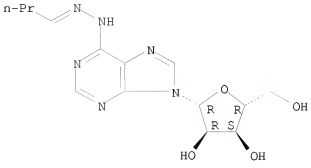
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS 18:CLASS 19:CLASS
 21:CLASS

```
L1      STRUCTURE UPLOADED

=> s l1 sam
SAMPLE SEARCH INITIATED 12:55:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       34 TO ITERATE

100.0% PROCESSED       34 ITERATIONS                                 12 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:           331 TO     1029
PROJECTED ANSWERS:               33 TO      447

L2           12 SEA SSS SAM L1

=>  d 1-12

L2   ANSWER 1 OF 12  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   934471-73-5  REGISTRY
ED   Entered STN:  09 May 2007
CN   β-D-Ribofuranuronamide, 1-deoxy-N-ethyl-1-[2-iodo-6-(methoxyamino)-9H-
     purin-9-yl]-  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C13 H17 I N6 O5
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT

Absolute stereochemistry.
```




```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2   ANSWER 2 OF 12  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   880140-32-9  REGISTRY
ED   Entered STN:  12 Apr 2006
CN   Inosine, butylidenehydrazone (9CI)  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C14 H20 N6 O4
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT
```

Absolute stereochemistry.
Double bond geometry unknown.

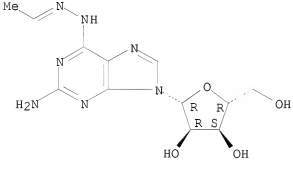


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 847651-35-8 REGISTRY
ED Entered STN: 31 Mar 2005
CN Guanosine, ethylidenehydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H17 N7 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.

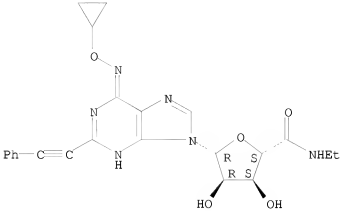


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 672299-62-6 REGISTRY
ED Entered STN: 07 Apr 2004
CN β-D-Ribofuranuronamide, 1-[6-[(cyclopropyloxy)amino]-2-(phenylethynyl)-9H-purin-9-yl]-1-deoxy-N-ethyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H24 N6 O5
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

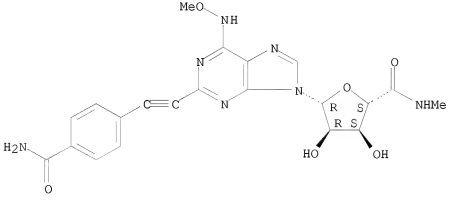


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 672299-55-7 REGISTRY
ED Entered STN: 07 Apr 2004
CN β-D-Ribofuranuronamide, 1-[2-[[4-(aminocarbonyl)phenyl]ethynyl]-6-(methoxyamino)-9H-purin-9-yl]-1-deoxy-N-methyl- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H21 N7 O6
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.



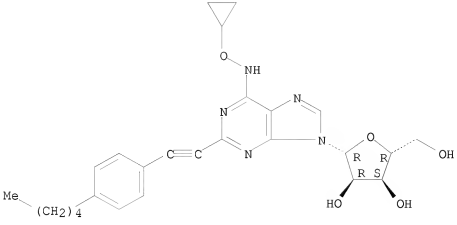
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 672299-35-3 REGISTRY

ED Entered STN: 07 Apr 2004
CN Inosine, 2-[(4-pentylphenyl)ethynyl]-, O-cyclopropyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H31 N5 O5
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

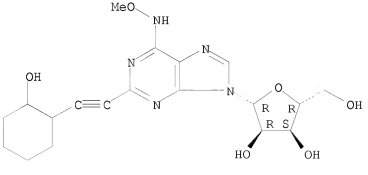


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 672299-14-8 REGISTRY
ED Entered STN: 07 Apr 2004
CN Inosine, 2-[(2-hydroxycyclohexyl)ethynyl]-, O-methyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H25 N5 O6
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

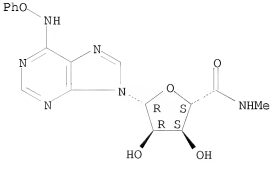


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 170966-25-3 REGISTRY
ED Entered STN: 05 Dec 1995
CN β-D-Ribofuranuronamide, 1-deoxy-N-methyl-1-[6-(phenoxyamino)-9H-purin-9-yl]- (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H18 N6 O5
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.

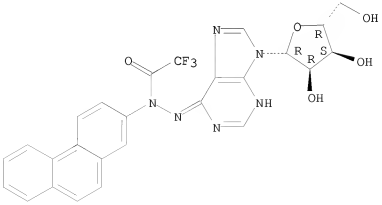


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 86271-17-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetic acid, trifluoro-, 1-(2-phenanthrenyl)-2-(9-β-D-ribofuranosyl-9H-purin-6-yl)hydrazide (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H21 F3 N6 O5
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry unknown.

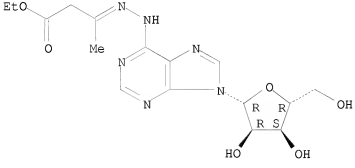


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-17-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Butanoic acid, 3-[(9-β-D-ribofuranosyl-9H-purin-6-yl)hydrazono]-, ethyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.

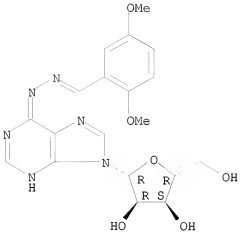


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-06-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(2,5-dimethoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

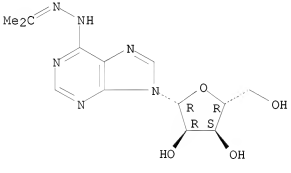
Absolute stereochemistry.
Double bond geometry unknown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38707-67-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, (1-methylethylidene)hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H18 N6 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

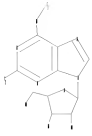
Absolute stereochemistry.

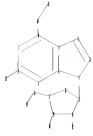


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=>
Uploading C:\Program Files\Stnexp\Queries\10840238B.str





chain nodes :
10 16 17 18 19 21 23
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15
chain bonds :
2-23 4-10 9-11 10-21 13-16 14-18 15-17 16-19
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-15 12-13 13-14 14-15

exact/norm bonds :
2-23 4-10 5-7 6-9 7-8 8-9 9-11 10-21 11-12 11-15 12-13 13-14 14-15
14-18 15-17 16-19
exact bonds :
13-16
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

G1:O,S,N

G2:H,N

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS 18:CLASS 19:CLASS
21:CLASS 23:CLASS

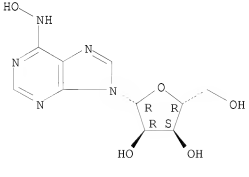
L3 STRUCTURE UPLOADED

=> s l3 sam
SAMPLE SEARCH INITIATED 12:59:44 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 34 TO ITERATE

100.0% PROCESSED 34 ITERATIONS 7 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 331 TO 1029
PROJECTED ANSWERS: 7 TO 298

```
L4             7 SEA SSS SAM L3

=> s l4 not l2
L5             0 L4 NOT L2

=> s l3 full
FULL SEARCH INITIATED 13:00:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      581 TO ITERATE

100.0% PROCESSED      581 ITERATIONS                          150 ANSWERS
SEARCH TIME: 00.00.01

L6           150 SEA SSS FUL L3

=> d 150

L6   ANSWER 150 OF 150  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   3414-62-8  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Inosine, oxime (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Adenosine, N-hydroxy- (7CI)
OTHER NAMES:
CN   6-(Hydroxylamino)-9-β-D-ribofuranosylpurine
CN   6-Hydroxyadenosine
CN   6-Hydroxyaminopurine ribonucleoside
CN   6-Hydroxyaminopurine riboside
CN   6-N-Hydroxyadenosine
CN   6-N-Hydroxyamino-9-β-D-ribofuranosylpurine
CN   9-β-D-Ribofuranosyl-6-(hydroxylamino)purine
CN   N-Hydroxyadenosine
CN   N6-Hydroxyadenosine
CN   N6-Hydroxyladenosine
CN   N6-Hydroxylaminopurine riboside
CN   NSC 529410
FS   STEREOSEARCH
MF   C10 H13 N5 O5
LC   STN Files:   BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
       CHEMLIST, IFICDB, IFIPAT, IFIUDB, RTECS*, TOXCENTER, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.
```




```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

```
             66 REFERENCES IN FILE CA (1907 TO DATE)
             66 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> file caplus medline biosis embase
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   208.50     208.71

FILE 'CAPLUS' ENTERED AT 13:01:07 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 13:01:07 ON 04 MAR 2008

FILE 'BIOSIS' ENTERED AT 13:01:07 ON 04 MAR 2008
Copyright (c) 2008 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.

=> d hist

     (FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008)

     FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
L1               STRUCTURE UPLOADED
L2           12 S L1 SAM
L3               STRUCTURE UPLOADED
L4            7 S L3 SAM
L5            0 S L4 NOT L2
L6          150 S L3 FULL

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008

=> s l6
L7         180 L6

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8          176 DUP REM L7 (4 DUPLICATES REMOVED)

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    12.44     221.15

FILE 'CAPLUS' ENTERED AT 13:01:47 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
```

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching

databases on STN. Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 4 Mar 2008 VOL 148 ISS 10
FILE LAST UPDATED: 3 Mar 2008 (20080303/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l8
L9 176 S L8

=> d ibib 171-176

L9 ANSWER 171 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:4369 CAPLUS
DOCUMENT NUMBER: 64:4369
ORIGINAL REFERENCE NO.: 64:796a-g
TITLE: Nucleic acids components and their analogs. LXXII. Synthesis of maleic acid hydrazide riboside and 2-deoxy-D-erythropentoside
AUTHOR(S): Pliml, J.; Sorm, F.
CORPORATE SOURCE: Ceskoslov. Akad. Ved, Prague
SOURCE: Collection of Czechoslovak Chemical Communications (1965), 30(11), 3744-51
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 64:4369

L9 ANSWER 172 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1965:431920 CAPLUS
DOCUMENT NUMBER: 63:31920
ORIGINAL REFERENCE NO.: 63:5716h,5717a
TITLE: Reaction of adenosine 1-N-oxide with diazotized sulfanilic acid
AUTHOR(S): Koessel, Hans; Doehring, Sabine
CORPORATE SOURCE: Max-Planck-Inst. Biochem., Munich, Germany
SOURCE: Biochimica et Biophysica Acta, Nucleic Acids and Protein Synthesis (1965), 95(4), 663-4
CODEN: BBNPAS; ISSN: 0005-2787
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 173 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:484550 CAPLUS
DOCUMENT NUMBER: 61:84550
ORIGINAL REFERENCE NO.: 61:14764f-h,14765a
TITLE: Nucleosides and nucleotides. VII. Synthesis of 6-substituted 2-amino-9-β-D-ribofuranosylpurines
AUTHOR(S): Naito, Takeo; Ueno, Katsujiro; Ishikawa, Fumiyoshi
CORPORATE SOURCE: Daiichi Seiyaku Co., Ltd., Tokyo
SOURCE: Chemical & Pharmaceutical Bulletin (1964), 12(8), 951-4
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 61:84550

L9 ANSWER 174 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1958:55947 CAPLUS
DOCUMENT NUMBER: 52:55947
ORIGINAL REFERENCE NO.: 52:10105c-g
TITLE: Synthesis of potential anticancer agents. XIII. Ribosides of 6-substituted purines
AUTHOR(S): Johnson, James A., Jr.; Thomas, H. Jeanette; Schaeffer, Howard J.
CORPORATE SOURCE: Southern Research Inst., Birmingham, AL
SOURCE: Journal of the American Chemical Society (1958), 80, 699-702
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L9 ANSWER 175 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1956:32341 CAPLUS
DOCUMENT NUMBER: 50:32341
ORIGINAL REFERENCE NO.: 50:6522f-h
TITLE: Adenosine 6-phosphoric acid and its salts
INVENTOR(S): Ruskin, Simon L.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2712541		19550705	US 1952-298193	19520710

L9 ANSWER 176 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1956:20103 CAPLUS
DOCUMENT NUMBER: 50:20103
ORIGINAL REFERENCE NO.: 50:4159g-i
TITLE: Preparation and physical properties of [a new] adenosine-N-phosphate
AUTHOR(S): Friedman, Herman; Ruskin, Simon Lyon
CORPORATE SOURCE: Ruskin Research Foundation, New Rochelle, NY
SOURCE: Congres International de Biochimie, Resumes des Communications (1952) 257-8
CODEN: 20DPAQ
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

=> d ibib 161-170

L9 ANSWER 161 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1967:103810 CAPLUS
DOCUMENT NUMBER: 66:103810
ORIGINAL REFERENCE NO.: 66:19391a,19394a
TITLE: 6-N-hydroxylamino-9-β-D-ribofuranosylpurine in mouse leukemia
AUTHOR(S): Burchenal, Joseph H.; Dollinger, Malin R.; Butterbaugh, J.; Stoll, D.; Giner-Sorolla, Alfredo
CORPORATE SOURCE: Sloan-Kettering Inst. for Cancer Res., New York, NY, USA
SOURCE: Biochemical Pharmacology (1967), 16(3), 423-9
CODEN: BCPCA6; ISSN: 0006-2952
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 162 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1967:8441 CAPLUS
DOCUMENT NUMBER: 66:8441
ORIGINAL REFERENCE NO.: 66:1619a,1622a
TITLE: Adenosine deaminase. I. Purification and properties of ox heart adenosine deaminase
AUTHOR(S): Rockwell, Margaret; Maguire, M. Helen
CORPORATE SOURCE: Univ. Sydney, Sydney, Australia
SOURCE: Molecular Pharmacology (1966), 2(6), 574-84
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 163 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:492200 CAPLUS
DOCUMENT NUMBER: 65:92200
ORIGINAL REFERENCE NO.: 65:17285d-g
TITLE: Purine ribonucleoside kinase activity and resistance to some analogs of adenosine
AUTHOR(S): Bennett, L. Lee, Jr.; Schnebli, Hans P.; Vail, Margaret H.; Allan, Paula W.; Montgomery, John A.
CORPORATE SOURCE: Kettering-Meyer Lab., Southern Res. Inst., Birmingham, AL
SOURCE: Molecular Pharmacology (1966), 2(5), 432-43
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 164 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:473482 CAPLUS
DOCUMENT NUMBER: 65:73482
ORIGINAL REFERENCE NO.: 65:13705a-b
TITLE: 6-Hydroxylaminopurines
AUTHOR(S): Giner-Sorolla, A.; O'Bryant, S.; Burchenal, J. H.; Bendich, A.
CORPORATE SOURCE: Sloan-Kettering Inst. for Cancer Res., New York, NY, USA
SOURCE: Biochemistry (1966), 5(9), 3057-61
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 165 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:466885 CAPLUS
DOCUMENT NUMBER: 65:66885
ORIGINAL REFERENCE NO.: 65:12491c-e
TITLE: Mechanism of adenosine deaminase action
AUTHOR(S): Baer, Hans Peter; Drummond, George I.
CORPORATE SOURCE: Univ. British Columbia, Vancouver, Can.
SOURCE: Biochemical and Biophysical Research Communications (1966), 24(4), 584-7
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 166 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:440180 CAPLUS
DOCUMENT NUMBER: 65:40180
ORIGINAL REFERENCE NO.: 65:7538c-d
TITLE: Enzymic hydrolysis of 6-substituents on purine ribosides
AUTHOR(S): Wolfenden, Richard

CORPORATE SOURCE: Princeton Univ., Princeton, NJ
SOURCE: Journal of the American Chemical Society (1966), 88(13), 3157-8
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 167 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:44141 CAPLUS
DOCUMENT NUMBER: 64:44141
ORIGINAL REFERENCE NO.: 64:8287h,8288a
TITLE: Synthesis and biological activity of 9-β-D-ribofuranosyl-6-hydroxylaminopurine
AUTHOR(S): Giner-Sorolla, Alfredo; Medrek, Lillian; Bendich, Aaron
CORPORATE SOURCE: Cornell Univ. Med. Coll., New York, NY
SOURCE: Journal of Medicinal Chemistry (1966), 9(1), 143-4
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English

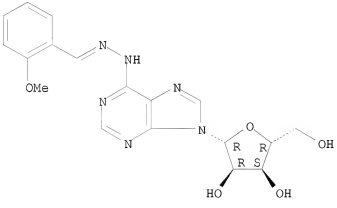
L9 ANSWER 168 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:44140 CAPLUS
DOCUMENT NUMBER: 64:44140
ORIGINAL REFERENCE NO.: 64:8287a-h
TITLE: The nucleophilic substitution of secondary sulfonyloxy groups of pyrimidine nucleosides
AUTHOR(S): Naito, Takeo; Hirata, Miyoshi; Nakai, Yoshiaki; Kobayashi, Toshihiko; Kaneo, Munefumi
CORPORATE SOURCE: Daiichi Seiyaku Co., Ltd., Tokyo
SOURCE: Chemical & Pharmaceutical Bulletin (1965), 13(10), 1258-61
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

L9 ANSWER 169 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:28592 CAPLUS
DOCUMENT NUMBER: 64:28592
ORIGINAL REFERENCE NO.: 64:5339c-f
TITLE: Biological photochemistry. I. Correlation between the photodynamic behavior and the chemical structure of nucleic acid-bases, nucleosides, and related compounds in the presence of methylene blue
AUTHOR(S): Zenda, Kazuko; Saneyoshi, Mineo; Chihara, Goro
CORPORATE SOURCE: Natl. Cancer Center Res. Inst., Tokyo
SOURCE: Chemical & Pharmaceutical Bulletin (1965), 13(9), 1108-13
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

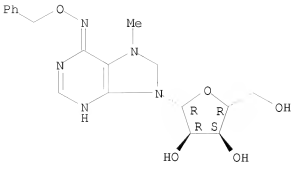
L9 ANSWER 170 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:4370 CAPLUS
DOCUMENT NUMBER: 64:4370
ORIGINAL REFERENCE NO.: 64:796g-h
TITLE: Synthesis of some hydroxylamine derivatives of pyrimidines and purines
AUTHOR(S): Chang, Pauline K.
CORPORATE SOURCE: Yale Univ. School of Med., New Haven, CT
SOURCE: Journal of Medicinal Chemistry (1965), 8(6), 884
CODEN: JMCMAR; ISSN: 0022-2623

```
DOCUMENT TYPE:          Journal
LANGUAGE:               English
OTHER SOURCE(S):        CASREACT 64:4370


=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   23.68     244.83

FILE 'REGISTRY' ENTERED AT 13:07:18 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    3 MAR 2008  HIGHEST RN 1006431-93-1
DICTIONARY FILE UPDATES:   3 MAR 2008  HIGHEST RN 1006431-93-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d hist

     (FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008)

     FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
L1              STRUCTURE UPLOADED
L2           12 S L1 SAM
L3              STRUCTURE UPLOADED
L4            7 S L3 SAM
L5            0 S L4 NOT L2
L6          150 S L3 FULL

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008
L7          180 S L6
L8          176 DUP REM L7 (4 DUPLICATES REMOVED)

     FILE 'CAPLUS' ENTERED AT 13:01:47 ON 04 MAR 2008
L9          176 S L8

     FILE 'REGISTRY' ENTERED AT 13:07:18 ON 04 MAR 2008

=> s l6 and methoxy?
      5722911 METHOXY?
L10         21 L6 AND METHOXY?

=> s l10 and 2-amino
      25240461 2
```

```
       7992142 AMINO
         11967 AMINOS
       7992142 AMINO
                 (AMINO OR AMINOS)
        576613 2-AMINO
                 (2(W)AMINO)
L11           0 L10 AND 2-AMINO

=> d l10 1-10

L10  ANSWER 1 OF 21  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   880140-36-3  REGISTRY
ED   Entered STN:  12 Apr 2006
CN   Inosine, [(2-methoxyphenyl)methylene]hydrazone (9CI)  (CA INDEX
     NAME)
FS   STEREOSEARCH
MF   C18 H20 N6 O5
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.
```



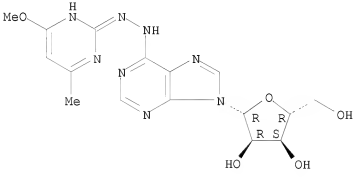

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10  ANSWER 2 OF 21  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   777010-79-4  REGISTRY
ED   Entered STN:  08 Nov 2004
CN   7H-Purinium, 7-methyl-6-[(phenylmethoxy)amino]-9-β-D-
     ribofuranosyl-  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C18 H22 N5 O5
CI   COM
SR   CA

Absolute stereochemistry.
```



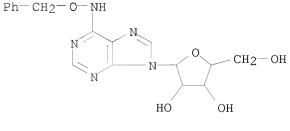
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L10 ANSWER 3 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 744961-78-2 REGISTRY
ED Entered STN: 15 Sep 2004
CN Inosine, (4-methoxy-6-methyl-2-pyrimidinyl)hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H20 N8 O5
CI COM
SR CA

Absolute stereochemistry.
Double bond geometry unknown.



L10 ANSWER 4 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 117778-28-6 REGISTRY
ED Entered STN: 02 Dec 1988
CN Adenosine, N-(phenylmethoxy)- (9CI) (CA INDEX NAME)
MF C17 H19 N5 O5
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

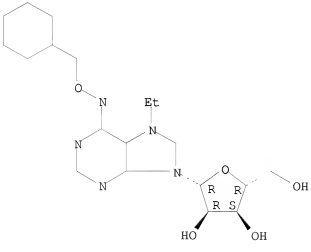
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 5 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 81319-60-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 7H-Purinium, 7-ethyl-6-[(phenylmethoxy)amino]-9-β-D-ribofuranosyl-, sulfate (2:1) (salt) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H24 N5 O5 . 1/2 O4 S
LC STN Files: CA, CAPLUS

CM 1

CRN 81308-62-5
CMF C19 H24 N5 O5

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 14808-79-8
CMF O4 S

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

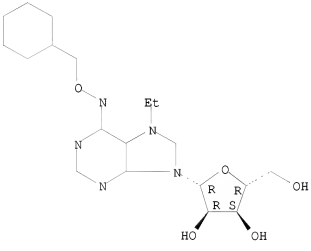
L10 ANSWER 6 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 81308-63-6 REGISTRY

ED Entered STN: 16 Nov 1984
CN 7H-Purinium, 7-ethyl-6-[(phenylmethoxy)amino]-9-β-D-
    ribofuranosyl-, perchlorate (salt) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H24 N5 O5 . Cl O4
LC STN Files: CA, CAPLUS

    CM 1

    CRN 81308-62-5
    CMF C19 H24 N5 O5

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

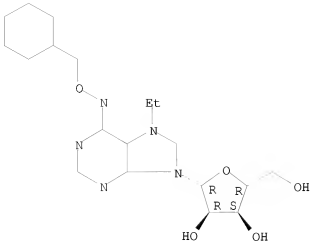
    CM 2

    CRN 14797-73-0
    CMF Cl O4

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 7 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 81308-62-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN 7H-Purinium, 7-ethyl-6-[(phenylmethoxy)amino]-9-β-D-
    ribofuranosyl- (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H24 N5 O5
CI COM

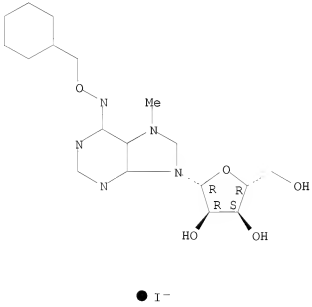
Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L10 ANSWER 8 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 81308-58-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN 7H-Purinium, 7-methyl-6-[(phenylmethoxy)amino]-9-β-D-ribofuranosyl-, iodide (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H22 N5 O5 . I
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
CRN (777010-79-4)

Absolute stereochemistry.



● I⁻

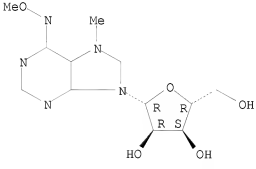
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 9 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN   81308-56-7 REGISTRY
ED   Entered STN: 16 Nov 1984
CN   7H-Purinium, 6-(methoxyamino)-7-methyl-9-β-D-ribofuranosyl-,
     sulfate (2:1) (salt) (9CI) (CA INDEX NAME)
FS   STEREOSEARCH
MF   C12 H18 N5 O5 . 1/2 O4 S
LC   STN Files: CA, CAPLUS, CASREACT

     CM   1

     CRN 52376-58-6
     CMF C12 H18 N5 O5

Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

     CM   2

     CRN 14808-79-8
     CMF O4 S

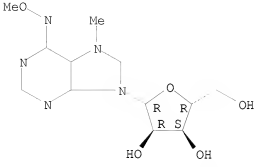
               3 REFERENCES IN FILE CA (1907 TO DATE)
               3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 10 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN   52376-59-7 REGISTRY
ED   Entered STN: 16 Nov 1984
CN   7H-Purinium, 6-(methoxyamino)-7-methyl-9-β-D-ribofuranosyl-,
     sulfate (1:1) (CA INDEX NAME)
FS   STEREOSEARCH
MF   C12 H18 N5 O5 . H O4 S
LC   STN Files: CA, CAPLUS

     CM   1

     CRN 52376-58-6
     CMF C12 H18 N5 O5

Absolute stereochemistry.



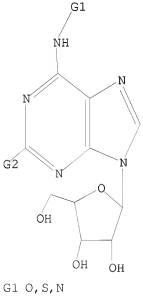
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 14996-02-2
CMF H O4 S

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 11-21
L11 HAS NO ANSWERS
L3 STR



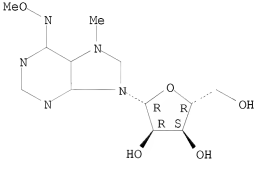
G1 O,S,N
G2 H,N

Structure attributes must be viewed using STN Express query preparation.
L6 150 SEA FILE=REGISTRY SSS FUL L3
L10 21 SEA FILE=REGISTRY ABB=ON PLU=ON L6 AND METHOXY?
L11 0 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND 2-AMINO

=> d l10 11-21

L10 ANSWER 11 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 52376-58-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN 7H-Purinium, 6-(methoxyamino)-7-methyl-9-β-D-ribofuranosyl-
(CA INDEX NAME)
FS STEREOSEARCH
MF C12 H18 N5 O5
CI COM

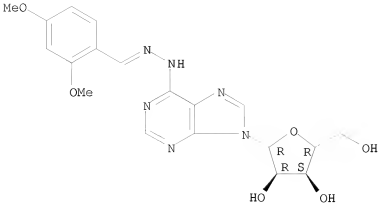
Absolute stereochemistry.



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L10 ANSWER 12 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 39030-94-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(2,4-dimethoxyphenyl)methylene]hydrazone (9CI) (CA
INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.

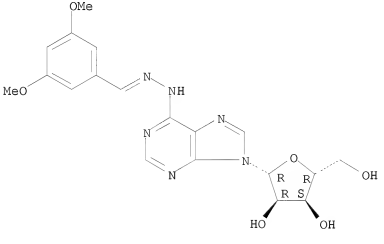


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 13 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-08-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(3,5-dimethoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.



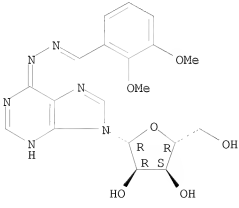
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 14 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-07-3 REGISTRY

ED Entered STN: 16 Nov 1984
CN Inosine, [(2,3-dimethoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
    (*File contains numerically searchable property data)

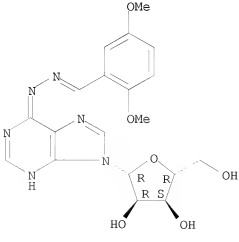
Absolute stereochemistry.
Double bond geometry unknown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 15 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-06-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(2,5-dimethoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
    (*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.

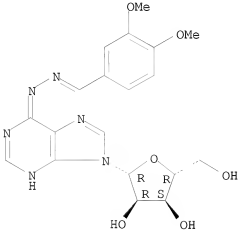


1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 16 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-05-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(3,4-dimethoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

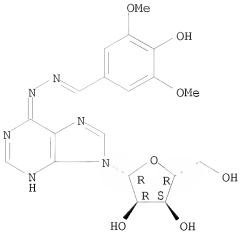
Absolute stereochemistry.
Double bond geometry unknown.



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 17 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38823-00-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(4-hydroxy-3,5-dimethoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H22 N6 O7
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

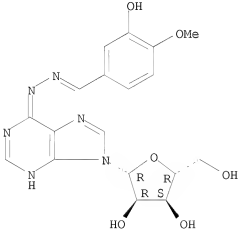
Absolute stereochemistry.
Double bond geometry unknown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 18 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38822-99-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(3-hydroxy-4-methoxyphenyl)methylene]hydrazone (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C18 H20 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.

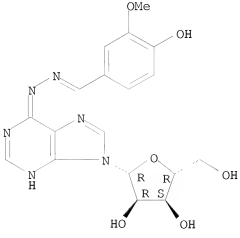


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 19 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 38822-98-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, [(4-hydroxy-3-methoxyphenyl)methylene]hydrazone (9CI)
(CA INDEX NAME)
FS STEREOSEARCH

MF C18 H20 N6 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
(*File contains numerically searchable property data)

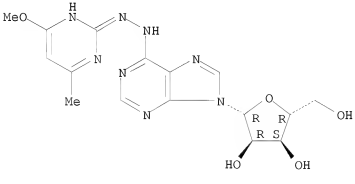
Absolute stereochemistry.
Double bond geometry unknown.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 20 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 35908-13-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, (4-methoxy-6-methyl-2-pyrimidinyl)hydrazone, hydrochloride (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H20 N8 O5 . x Cl H
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATOLD
CRN (744961-78-2)

Absolute stereochemistry.
Double bond geometry unknown.

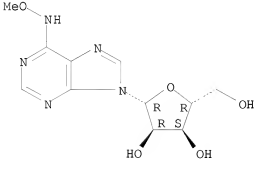


●x HCl

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10 ANSWER 21 OF 21 REGISTRY COPYRIGHT 2008 ACS on STN
RN 19399-25-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Inosine, O-methyloxime (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Adenosine, N-methoxy- (8CI)
OTHER NAMES:
CN N-Methoxyadenosine
CN N6-Methoxyadenosine
CN NSC 529847
FS STEREOSEARCH
DR 22933-99-9, 85373-36-0, 92771-51-2
MF C11 H15 N5 O5
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX, MEDLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

32 REFERENCES IN FILE CA (1907 TO DATE)
32 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus medline
COST IN U.S. DOLLARS SINCE FILE ENTRY 60.67 TOTAL SESSION 305.50
FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 13:11:32 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 13:11:32 ON 04 MAR 2008

=> s 19399-25-8
L12 33 19399-25-8

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13 32 DUP REM L12 (1 DUPLICATE REMOVED)

=> d ibib 31-32

```
L13  ANSWER 31 OF 32  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1971:477197  CAPLUS
DOCUMENT NUMBER:          75:77197
ORIGINAL REFERENCE NO.:   75:12227a,12230a
TITLE:                    Facile conversion of amino to thiono group in certain
                          nucleobases
AUTHOR(S):                Ueda, Tohru; Imazawa, Masaoki; Miura, Kazunobu; Iwata,
                          Ryo; Odajima, Keiko
CORPORATE SOURCE:         Fac. Pharm. Sci., Hokkaido Univ., Sapporo, Japan
SOURCE:                   Tetrahedron Letters (1971), (27), 2507-10
                          CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE:            Journal
LANGUAGE:                 English

L13  ANSWER 32 OF 32  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1968:452103  CAPLUS
DOCUMENT NUMBER:          69:52103
ORIGINAL REFERENCE NO.:   69:9735a,9738a
TITLE:                    The synthesis and biological properties of
                          hydroxylaminopurines and related derivatives
AUTHOR(S):                Giner-Sorolla, A.; O'Bryant, S. A.; Nanos, C.;
                          Dollinger, M. R.; Bendich, A.; Burchenal, J. H.
CORPORATE SOURCE:         Med. Coll., Cornell Univ., New York, NY, USA
SOURCE:                   Journal of Medicinal Chemistry (1968), 11(3), 521-3
                          CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE:            Journal
LANGUAGE:                 English


=> file uspatful
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     5.41     310.91

FILE 'USPATFULL' ENTERED AT 13:12:27 ON 04 MAR 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 4 Mar 2008 (20080304/PD)
FILE LAST UPDATED: 4 Mar 2008 (20080304/ED)
HIGHEST GRANTED PATENT NUMBER: US7340778
HIGHEST APPLICATION PUBLICATION NUMBER: US2008052798
CA INDEXING IS CURRENT THROUGH 4 Mar 2008 (20080304/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 4 Mar 2008 (20080304/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2007
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2007


=> s 19399-25-8
L14           0 19399-25-8

=> d hist

     (FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008)

     FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
L1             STRUCTURE UPLOADED
L2            12 S L1 SAM
L3             STRUCTURE UPLOADED
L4             7 S L3 SAM
L5             0 S L4 NOT L2
L6           150 S L3 FULL
```

```
     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008
L7          180 S L6
L8          176 DUP REM L7 (4 DUPLICATES REMOVED)

     FILE 'CAPLUS' ENTERED AT 13:01:47 ON 04 MAR 2008
L9          176 S L8

     FILE 'REGISTRY' ENTERED AT 13:07:18 ON 04 MAR 2008
L10          21 S L6 AND METHOXY?
L11           0 S L10 AND 2-AMINO

     FILE 'CAPLUS, MEDLINE' ENTERED AT 13:11:32 ON 04 MAR 2008
L12          33 S 19399-25-8
L13          32 DUP REM L12 (1 DUPLICATE REMOVED)

     FILE 'USPATFULL' ENTERED AT 13:12:27 ON 04 MAR 2008
L14           0 S 19399-25-8

=> s 16
L15         22 L6

=> d ibib 1-22

L15  ANSWER 1 OF 22  USPATFULL on STN
ACCESSION NUMBER:       2007:322570  USPATFULL
TITLE:                  ADENOSINE A2B RECEPTOR AGONISTS
INVENTOR(S):            Baraldi, Pier Giovanni, Ferrara, ITALY
                        Borea, Pier Andrea, Ferrara, ITALY
                        Moorman, Allan R., Durham, NC, UNITED STATES
                        Preti, Delia, Ferrara, ITALY

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 2007281902      A1   20071206
APPLICATION INFO.:      US 2007-757559     A1   20070604  (11)

                               NUMBER         DATE
                        ------------------ --------
PRIORITY INFORMATION:   US 2006-811350P    20060606 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   KING PHARMACEUTICALS, INC., 400 CROSSING BOULEVARD,
                        BRIDGEWATER, NJ, 08807, US
NUMBER OF CLAIMS:       28
EXEMPLARY CLAIM:        1
LINE COUNT:             1366
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15  ANSWER 2 OF 22  USPATFULL on STN
ACCESSION NUMBER:       2006:308188  USPATFULL
TITLE:                  Engineered protein kinases which can utilize modified
                        nucleotide triphosphate substrates
INVENTOR(S):            Shokat, Kevan, San Francisco, CA, UNITED STATES
PATENT ASSIGNEE(S):     Princeton University (U.S. corporation)

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 2006263800      A1   20061123
APPLICATION INFO.:      US 2006-358947     A1   20060222  (11)
RELATED APPLN. INFO.:   Division of Ser. No. US 2001-985061, filed on 1 Nov
                        2001, GRANTED, Pat. No. US 7026461
```

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1-43
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 2959
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2006:302253 USPATFULL
TITLE: Nucleoside derivatives for treating hepatitis C virus infection
INVENTOR(S): Roberts, Christopher D., Belmont, CA, UNITED STATES
Keicher, Jesse, Menlo Park, CA, UNITED STATES
Dyatkina, Natalia B., Mountain View, CA, UNITED STATES
PATENT ASSIGNEE(S): Genelabs Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006258613	A1	20061116	
APPLICATION INFO.:	US 2006-492558	A1	20060724	(11)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2004-821638, filed on 8 Apr 2004, GRANTED, Pat. No. US 7094768 Continuation-in-part of Ser. No. US 2003-676956, filed on 30 Sep 2003, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-415222P	20020930 (60)
	US 2003-443169P	20030129 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FOLEY & LARDNER LLP, 1530 PAGE MILL ROAD, PALO ALTO, CA, 94304, US
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
LINE COUNT: 1450
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2006:159930 USPATFULL
TITLE: Synthesis and use of 2'-substituted-n6-modified nucleosides
INVENTOR(S): An, Haoyun, Carlsbad, CA, UNITED STATES
Ramasamy, Kanda, Aliso Viejo, CA, UNITED STATES
Shaw, Stephanie, Rowland Heights, CA, UNITED STATES
PATENT ASSIGNEE(S): Valeant Research & Development, Costa Mesa, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006135465	A1	20060622	
APPLICATION INFO.:	US 2004-542235	A1	20040115	(10)
	WO 2004-US1125		20040115	
			20060123	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-440666P	20030115 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP, 900 THIRD AVENUE, NEW YORK, NY, 10022, US
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 833
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 5 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2006:89101 USPATFULL
TITLE: Engineered protein kinases which can utilize nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan, San Francisco, CA, UNITED STATES
PATENT ASSIGNEE(S): Princeton University, Princeton, NJ, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7026461	B1	20060411
APPLICATION INFO.:	US 2001-985061		20011101 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-367065, Pat. No. US 6390821 A 371 of International Ser. No. WO 1998-US2522, filed on 9 Feb 1998 Continuation-in-part of Ser. No. US 1997-797522, filed on 7 Feb 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Wilson, James O.
ASSISTANT EXAMINER: Khare, Devesh
LEGAL REPRESENTATIVE: Morgan, Lewis & Bockius LLP
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 3029
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 6 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2005:324856 USPATFULL
TITLE: Purine derivatives as adenosine A1 receptor agonists and methods of use thereof
INVENTOR(S): Jagtap, Prakash, Beverly, MA, UNITED STATES
Szabo, Csaba, Gloucester, MA, UNITED STATES
Salzman, Andrew L., Belmont, MA, UNITED STATES
PATENT ASSIGNEE(S): Inotek Pharmaceuticals Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005282768	A1	20051222
APPLICATION INFO.:	US 2005-137632	A1	20050525 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2004-574805P	20040526 (60)
	US 2004-588263P	20040715 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: WILMER CUTLER PICKERING HALE AND DORR LLP, 399 PARK AVENUE, NEW YORK, NY, 10022, US

NUMBER OF CLAIMS: 144
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 5642
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 7 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2005:50468 USPATFULL
TITLE: Inhibition of viruses
INVENTOR(S): Loakes, David, Cambridge, UNITED KINGDOM
Brown, Daniel M., Cambridge, UNITED KINGDOM
Negishi, Kazuo, Okayama, JAPAN
Moriyama, Kei, Okayama, JAPAN
Balzarini, Jan, Leuven, BELGIUM
Cameron, Craig, State College, PA, UNITED STATES
Arnold, Jamie, State College, PA, UNITED STATES
Castro, Christian, State College, PA, UNITED STATES
Korneeva, Victoria, State College, PA, UNITED STATES
Graci, Jason, State College, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005043268	A1	20050224
APPLICATION INFO.:	US 2004-840238	A1	20040507 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-207005, filed on 30 Jul 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2001-26701	20011107

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004
NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 1293
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 8 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2004:190691 USPATFULL
TITLE: Nucleoside derivatives for treating hepatitis C virus infection
INVENTOR(S): Roberts, Christopher Don, Belmont, CA, UNITED STATES
Dyatkina, Natalia B., Mountain View, CA, UNITED STATES
PATENT ASSIGNEE(S): Genelabs Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004147464	A1	20040729
APPLICATION INFO.:	US 2003-676956	A1	20030930 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-443169P	20030129 (60)
	US 2002-415222P	20020930 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Gerald F. Swiss, Foley & Lardner LLP, Three Palo Alto Square, 3000 El Camino Real, Ste 100, Palo Alto, CA, 94306-2121

NUMBER OF CLAIMS: 33
EXEMPLARY CLAIM: 1
LINE COUNT: 2881
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 9 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2004:83202 USPATFULL
TITLE: Nucleoside derivatives for treating hepatitis C virus infection
INVENTOR(S): Roberts, Christopher Don, Belmont, CA, UNITED STATES
Dyatkina, Natalia B., Mountain View, CA, UNITED STATES
Keicher, Jesse D., Menlo Park, CA, UNITED STATES
Liehr, Sebastian Johannes Reinhard, East Palo Alto, CA, UNITED STATES
Hanson, Eric Jason, San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004063658	A1	20040401
APPLICATION INFO.:	US 2003-431631	A1	20030506 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-378624P	20020506 (60)
	US 2002-392871P	20020628 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box 1404, Alexandria, VA, 22313-1404
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 4827
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 10 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2003:188433 USPATFULL
TITLE: Inhibition of viruses
INVENTOR(S): Loakes, David, Cambridge, UNITED KINGDOM
Brown, Daniel M., Cambridge, UNITED KINGDOM
Negishi, Kazuo, Okayama, JAPAN
Moriyama, Kei, Okayama, JAPAN
Balzarini, Jan, Leuven, BELGIUM
PATENT ASSIGNEE(S): Medical Research Council (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003130226	A1	20030710
	US 7049303	B2	20060523
APPLICATION INFO.:	US 2002-207005	A1	20020730 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2001-26701	20011107

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004
NUMBER OF CLAIMS: 30
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 763
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 11 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2003:134579 USPATFULL
TITLE: Methods and compositions for reducing ischemic injury of the heart by administering adenosine receptor agonists and antagonists
INVENTOR(S): Liang, Bruce T., Merion Station, PA, UNITED STATES
Jacobson, Kenneth A., Silver Springs, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003092668	A1	20030515
	US 6586413	B2	20030701
APPLICATION INFO.:	US 2001-800274	A1	20010305 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-423129, filed on 5 Nov 1999, GRANTED, Pat. No. US 6211165
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: DANN DORFMAN HERRELL & SKILLMAN, SUITE 720, 1601 MARKET STREET, PHILADELPHIA, PA, 19103-2307
NUMBER OF CLAIMS: 73
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 37 Drawing Page(s)
LINE COUNT: 1626
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 12 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2003:47639 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, United States
PATENT ASSIGNEE(S): Princeton University, Princeton, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6521417	B1	20030218
APPLICATION INFO.:	US 2000-568466		20000510 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 367065, now patented, Pat. No. US 6390821, issued on 21 May 2002 Continuation-in-part of Ser. No. US 1997-797522, filed on 7 Feb 1997, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Morgan, Lewis & Bockius LLP
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 44 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 3199
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 13 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2002:265921 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, UNITED STATES
PATENT ASSIGNEE(S): Princeton University. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002146797	A1	20021010
	US 7049116	B2	20060523
APPLICATION INFO.:	US 2001-985157	A1	20011101 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-367065, filed on 17 Nov 1999, GRANTED, Pat. No. US 6390821 A 371 of International Ser. No. WO 1998-US2522, filed on 9 Feb 1998, UNKNOWN A 371 of International Ser. No. US 1997-797522, filed on 7 Feb 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 3234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 14 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2002:115382 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, United States
PATENT ASSIGNEE(S): Princeton University, Princeton, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6390821	B1	20020521
	WO 9835048		19980813
APPLICATION INFO.:	US 1999-367065		19991117 (9)
	WO 1998-US2522		19980209
			19991117 PCT 371 date

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-797522, filed on 7 Feb 1997, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Morgan, Lewis & Bockius LLP
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 41 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 3084
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 15 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2002:28125 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, UNITED STATES
PATENT ASSIGNEE(S): Princeton University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002016976	A1	20020207
APPLICATION INFO.:	US 2001-752723	A1	20010103 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-367065, filed on 17 Nov 1999, PENDING A 371 of International Ser. No. WO 1998-US2522, filed on 9 Feb 1998, UNKNOWN Continuation of Ser. No. US 1997-797522, filed on 7 Feb 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS, 1800 M STREET NW, WASHINGTON, DC, 20036-5869
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 3057
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 16 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2001:226606 USPATFULL
TITLE: Methods for reducing ischemic injury of the heart via the sequential administration of monophosphoryl lipid A and adenosine receptor agents
INVENTOR(S): Liang, Bruce T., Merion Station, PA, United States
Jacobson, Kenneth A., Silver Springs, MD, United States
PATENT ASSIGNEE(S): Trustees of the University of Pennsylvania, Philadelphia, PA, United States (U.S. corporation)
The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6329349	B1	20011211	
	WO 9920284		19990429	
APPLICATION INFO.:	US 2000-530164		20000424	(9)
	WO 1998-US22515		19981023	
			20000424	PCT 371 date
			20000420	PCT 102(e) date

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Weddington, Kevin E.
LEGAL REPRESENTATIVE: Dann, Dorfman, Herrell and Skillman
NUMBER OF CLAIMS: 30
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 957
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 17 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2001:48039 USPATFULL
TITLE: Methods and compositions for reducing ischemic injury of the heart by administering adenosine receptor agonists and antagonists
INVENTOR(S): Liang, Bruce T., Merion Station, PA, United States
Jacobson, Kenneth A., Silver Springs, MD, United States

PATENT ASSIGNEE(S): The Trustees of the University of Pennsylvania, Philadelphia, PA, United States (U.S. corporation)
The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6211165	B1	20010403	
	WO 9850047		19981112	
APPLICATION INFO.:	US 1999-423129		19991105	(9)
	WO 1998-US9031		19980508	
			19991105	PCT 371 date
			19991105	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46030P	19970509 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Henley, III, Raymond
LEGAL REPRESENTATIVE: Dann, Dorman, Herrell and Skillman
NUMBER OF CLAIMS: 60
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 41 Drawing Figure(s); 30 Drawing Page(s)
LINE COUNT: 1364
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 18 OF 22 USPATFULL on STN
ACCESSION NUMBER: 97:107061 USPATFULL
TITLE: A.sub.3 adenosine receptor agonists
INVENTOR(S): Jacobson, Kenneth A., Silver Spring, MD, United States
Jeong, Heaok Kim, Rockville, MD, United States
Siddiqi, Suhaib M., Gaithersburg, MD, United States
Johnson, Carl R., Detroit, MI, United States
Secrist, III, John A., Birmingham, AL, United States
Tiwari, Kamal N., Birmingham, AL, United States
PATENT ASSIGNEE(S): The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5688774		19971118	
APPLICATION INFO.:	US 1995-396111		19950228	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-274628, filed on 13 Jul 1994 which is a continuation-in-part of Ser. No. US 1993-163324, filed on 6 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-91109, filed on 13 Jul 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kunz, Gary L.
LEGAL REPRESENTATIVE: Leydig, Voit & Mayer, Ltd.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2283
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 19 OF 22 USPATFULL on STN
ACCESSION NUMBER: 97:14686 USPATFULL

TITLE: Inhibitor of vascular permeability enhancer
INVENTOR(S): Nagaoka, Akinobu, Kawanishi, Japan
Imamoto, Tetsuji, Kitakatsuragi-gun, Japan
Asano, Tsuneo, Kawanishi, Japan
Sugiura, Yoshihiro, Tsurumai-nishimachi, Japan
Goto, Giichi, Osaka, Japan
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5604210		19970218
APPLICATION INFO.:	US 1995-456723		19950601 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-120947	19940602

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Henley, III, Raymond
LEGAL REPRESENTATIVE: Fitzpatrick, Cella, Harper & Scinto
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
LINE COUNT: 1067
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 20 OF 22 USPATFULL on STN
ACCESSION NUMBER: 95:60363 USPATFULL
TITLE: 2-chloro-N.sup.6 -substituted adenosines, their pharmaceutical compositions, and activity in treating ischemias
INVENTOR(S): Knutsen, Lars J. S., Vedb k, Denmark
Lau, Jesper, Farum, Denmark
PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5430027		19950704
APPLICATION INFO.:	US 1993-61892		19930514 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1992-62592	19920514

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Crane, L. Eric
LEGAL REPRESENTATIVE: Zelson, Steve T., Lambiris, Elias J.
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1,14,16,18
LINE COUNT: 910
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 21 OF 22 USPATFULL on STN
ACCESSION NUMBER: 91:68877 USPATFULL
TITLE: N-6 substituted adenosine derivatives as cardiac vasodilators
INVENTOR(S): Olsson, Ray A., Odessa, FL, United States
Thompson, Robert D., Tampa, FL, United States
PATENT ASSIGNEE(S): Whitby Research, Inc., Irvine, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5043325		19910827
APPLICATION INFO.:	US 1986-829285		19860213 (6)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1984-601435, filed on 18 Apr 1984, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Brown, Johnnie R.
ASSISTANT EXAMINER: Crane, L. Eric
LEGAL REPRESENTATIVE: Hackler, Walter A., Baran, Robert J.
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1,23
LINE COUNT: 462
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 22 OF 22 USPATFULL on STN
ACCESSION NUMBER: 73:45416 USPATFULL
TITLE: PROCESS FOR PRODUCING RIBOSIDES OF HETEROCYCLIC ORGANIC BASES BY FERMENTATION
INVENTOR(S): Nakayama, Kiyoshi, Sagamihara, Japan
Furuya, Akira, Kawasaki, Japan
Kato, Fumio, Fukuoka, Japan
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3763008		19731002
APPLICATION INFO.:	US 1972-229580		19720225 (5)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1971-9298	19710226
	JP 1971-23041	19710414
	JP 1971-23042	19710414

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Tanenholtz, Alvin E.
LEGAL REPRESENTATIVE: Joseph M. Fitzpatrick et al.
NUMBER OF CLAIMS: 7
LINE COUNT: 531
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 10 iall

L15 ANSWER 10 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2003:188433 USPATFULL
TITLE: Inhibition of viruses
INVENTOR(S): Loakes, David, Cambridge, UNITED KINGDOM
Brown, Daniel M., Cambridge, UNITED KINGDOM
Negishi, Kazuo, Okayama, JAPAN
Moriyama, Kei, Okayama, JAPAN
Balzarini, Jan, Leuven, BELGIUM
PATENT ASSIGNEE(S): Medical Research Council (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003130226	A1	20030710
	US 7049303	B2	20060523

APPLICATION INFO.: US 2002-207005 A1 20020730 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2001-26701	20011107
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004	
NUMBER OF CLAIMS:	30	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	

ABSTRACT:

Disclosed is a pharmaceutical composition comprising a ribonucleoside analogue in accordance with general formula I or II as herein defined, in admixture with a physiologically acceptable excipient diluent or carrier.

FIELD OF THE INVENTION

[0001] The present invention relates to a method of inducing mutations in viruses, a method of inhibiting the replication of viruses, pharmaceutical compositions for use in inhibiting the replication of viruses, and the use of various compounds in the preparation of medicaments to inhibit viral replication. The invention specifically applies to RNA viruses, that is, viruses which have an RNA genome or which replicate via an essential RNA intermediate.

BACKGROUND OF THE INVENTION

[0002] RNA viruses are responsible for many diseases of man and animals. Examples of RNA viruses which are human pathogens include influenza virus, poliovirus, rhinovirus and HIV. A specific example of a pathogenic DNA virus which replicates via an essential RNA intermediate is hepatitis B virus (HBV).

[0003] Very few effective antiviral agents are currently available. Certain compounds which are moderately effective against HIV are deoxynucleoside analogues. These act by inhibiting HIV replication by acting as "chain terminators" i.e. causing termination of HIV reverse transcriptase-mediated DNA synthesis. However the efficacy of such drugs is limited because of the emergence of resistant strains of viruses. RNA viruses in general, and HIV in particular, have a very high mutation rate during replication, and this high mutation frequency enhances the likelihood of resistant strains emerging.

[0004] Recently the idea has developed that RNA viruses may be close to the "edge of viability". That is, the mutation frequency of such viruses is so high that a comparatively modest increase in mutation frequency may be sufficient to render the great majority of the viral population non-viable, due to the presence of deleterious mutations at essential loci in the viral genome. This well-known concept is known as "error catastrophe" and results with the mutagen ribavirin in the context of poliovirus strongly suggest that the concept is well-founded (Crotty et al, 2000 Nature Medicine 6, 1375-1379; Crotty et al, 2001 Proc. Natl. Acad. Sci. USA 98, 6895-6900).

[0005] Loeb et al, (WO 98/18324 and U.S. Pat. Number 6,063,628) disclose the use of ribonucleoside analogues to increase the mutation rate in (and thereby inhibit the replication of) RNA viruses such as HIV or HCV. Loeb et al state that the ribonucleoside analogue may typically be an analogue of cytidine, uridine, adenosine or guanosine, but that analogues of cytidine or uridine (i.e. pyrimidine analogues) are preferred (U.S. Pat. Number 6,063,628; column 3 lines 44-45). Loeb et al do not specifically refer to many purine nucleoside analogues, but adenosine analogues specifically mentioned include:

1,N.sup.6-ethenoadenosine, 3-methyladenosine and N.sup.6-methyladenosine. Guanosine analogues specifically mentioned include 8-hydroxyguanosine, O.sup.6-methylguanosine, O.sup.6-ethylguanosine, O.sup.6-isopropylguanosine, 3,N.sup.2-ethenoguanosine, O.sup.6-alkylguanosine, 8-oxo-guanosine, 2,N.sup.3-ethenoguanosine, and 8-aminoguanosine.

[0006] Interestingly, neither WO 98/18324 nor U.S. Pat. Number 6,063,628 contain any data from experiments performed by the inventors to support the claims made therein. Only one experiment is described in which HIV is passaged in vitro in the presence of either 5-hydroxyuridine or 5-bromocytidine. The results after 4 passages are shown in FIG. 3: no decline in viral titer is apparent in the Figures.

[0007] The content of all documents mentioned in this specification is incorporated herein by reference.

SUMMARY OF THE INVENTION

[0008] The present invention relates to certain nucleoside analogues which the present inventors, in contrast to the data presented by Loeb et al, have found to be effective in inhibiting RNA virus replication, even within 4 passages in vitro.

[0009] In a first aspect the invention provides a method of inhibiting the replication and/or increasing the mutation rate of an RNA virus, the method comprising administering an RNA nucleoside analogue to a cell infected by an RNA virus (as herein defined), the analogue being incorporated by a polymerase into an RNA copy of the viral genomic nucleic acid molecule, wherein the nucleoside analogue conforms to the general formula I or II below: ##STR1##

[0010] where:

[0011] n=1-4, preferably 2-4,

[0012] X.sup.1.dbd.N or CH or CR.sup.5

[0013] X.sup.2.dbd.N or S or CR.sup.5

[0014] X.sup.3.dbd.NR.sup.6 or O or S or R.sup.6 when X.sup.2.dbd.N or X.sup.3.dbd.NR.sup.6 or R.sup.6 when X.sup.2.dbd.S, and X.sup.3 is absent when X.sup.2.dbd.CR.sup.5

[0015] R.sup.1.dbd.H or alkyl or aryl or alkaryl or acyl

[0016] R.sup.2.dbd.H or alkyl or aryl or alkaryl or acyl; when X.sup.2.dbd.S, R.sup.2 is absent;

[0017] R.sup.3.dbd.H or NR.sup.5R.sup.6 or NR.sup.5NR.sup.5R.sup.6 or NR.sup.5OR.sup.5

[0018] R.sup.5.dbd.H or alkyl or alkenyl or alkynyl or aryl or alkaryl or acyl

[0019] R.sup.6.dbd.H or alkyl or alkenyl or alkynyl or aryl or alkaryl or acyl and

[0020] R.sup.4.dbd.H or ##STR2##

[0021] wherein

[0022] Z=O or S or CH.sub.2 or CHF or CF.sub.2 or NR.sup.5

[0023] X.sup.4.dbd.OH or F

[0024] R.sup.7.dbd.H or PO.sub.3.sup.2- or P.sub.2O.sub.6.sup.3- or P.sub.3O.sub.9.sup.4- or a masked phosphate derivative.

[0025] Alkyl groups, if present, are preferably methyl groups (desirably unsubstituted). Aryl groups, if present, are preferably phenyl groups, substituted or unsubstituted. Desirably no more than one aryl or alkaryl group is present in a molecule according to the general formulae. Conveniently at least one of R.sup.1-R.sup.6 is H and preferably at least two of R.sup.1-R.sup.6 are H.

[0026] A masked phosphate derivative is a modified phosphate group in which the negative charge(s) which would normally be present in an unmodified phosphate group are reduced or (more preferably) entirely neutralized by additional moieties. This has the benefit of facilitating transport of compounds comprising the modified phosphate group across a lipid membrane (e.g. across a cell membrane). An example of a masked phosphate derivative is bis-POM/bis-POM PMEA (see Delaney et al, 2001 Antiviral Chemistry and Chemotherapy 12, 1-35) or cycloSal (Meier et al, Eur. J. Organic Chemical 1998, 837).

[0027] For present purposes an "RNA virus" is considered to include all viruses with an RNA genome (encompassing both "conventional" RNA viruses and retroviruses) and any virus which requires a genomic RNA intermediate for the purposes of replication. Examples of relevant viruses include ortho- and paramyxoviruses, poliovirus, rhinovirus, retroviruses (especially HIV-1 and HIV-2), hepatitis B and C viruses (HBV and HCV respectively), rotaviruses, flaviviruses and certain arboviruses (e.g. Dengue Fever virus).

[0028] The invention encompasses the administration of a ribonucleoside analogue (that is, a base analogue covalently joined to a ribosyl residue) to an infected cell. The administered ribonucleoside analogues may be converted to the corresponding ribonucleotide analogues intracellularly by known enzymes. However it is also possible to perform the invention by administering the base analogue (without an attached ribosyl residue), which base analogue is then converted by phosphoribosylation (in vivo if administered to a living multicellular organism, or intracellularly if administered to a cell in vitro) into a ribonucleotide analogue. Equally the invention encompasses within its scope the administration of a ribonucleotide analogue (that is, a ribonucleoside analogue esterified to a phosphate group, or a di- or tri-phosphate). For the purposes of economy, the compounds of use in the invention are referred to as ribonucleoside analogues, although those skilled in the art will appreciate that the general formulae presented above encompass both base analogues and ribonucleotide analogues, and unless the context dictates otherwise, the term "ribonucleoside" analogue is intended to embrace both base analogue and ribonucleotide analogue. It is generally preferred that the base analogue incorporated in the ribonucleoside analogue is a purine base analogue, which term specifically includes 7-deaza purine analogues.

[0029] In some instances it may be preferred to perform the invention by use of base analogues, especially in preference to ribonucleoside analogues, since these may be better absorbed by mammalian subjects following administration in vivo.

[0030] Compounds for use in the invention and in accordance with the general formulae presented above are commercially available and/or are readily capable of being synthesised by those skilled in the art using published protocols. Other compounds may be obtained by following the detailed teaching provided in the present specification.

[0031] In preferred embodiments Z is O. In the same or other preferred embodiments X.sup.2 is N. In the same or other preferred embodiments X.sup.3 is O or comprises N. In the same or other preferred embodiments X.sup.4 is OH.

Desirably, in one embodiment, Z is O, X.sup.2 is N, X.sup.3 is N or O and X.sup.4 is OH. In an especially preferred embodiment Z is O, X.sup.2 is N, X.sup.3 is O, X.sup.4 is OH and R.sub.1 is alkyl, especially methyl.

[0032] Generally preferred are ribonucleotide analogues which have low toxicity but high viral mutagenicity. Particular examples of preferred ribonucleoside analogues include those illustrated in FIGS. 3, 7 and 11, and the corresponding base analogues and ribonucleotide analogues.

[0033] Especially advantageous is the ribonucleoside analogue having the structure shown in FIG. 11, which compound has the full name 2-amino-6-methoxyamino-9-β-D-ribofuranosylpurine, abbreviated for simplicity as rK, and the corresponding base analogue K and ribonucleotide analogue rKP (which expression incorporates in particular mono-, di- and triphosphates). The di- and triphosphates may be referred to as rKDP and rKTP. The inventors have found that rK is active in reducing viral titer, especially the titer of HIV-1 when the virus is grown in vitro in tissue culture.

[0034] In order to be effective, the ribonucleoside analogues of the invention need to be incorporated into the RNA copy of the viral genomic nucleic acid with reasonable efficiency and must therefore be recognisable as a suitable substrate by the relevant RNA polymerase inside the host cell. For "conventional" RNA viruses this is an RNA polymerase encoded by the virus. For retroviruses, the relevant RNA polymerase is the RNA polymerase encoded by the host cell. Generally speaking, viral RNA polymerases are less accurate and less discriminating than host cell RNA polymerases and will be more likely to utilise the ribonucleoside analogues.

[0035] The inventors have additionally made the surprising discovery that certain ribonucleoside analogues, preferably but not necessarily in accordance with general formulae I or II above, can inhibit retroviral transcription, which finding has not previously been suggested or in any way disclosed in the prior art. Without wishing to be bound by any particular theory, the inventors believe that this is due to an inhibitory effect of the ribonucleoside analogue on transcription promoted by a 5' long terminal repeat ("LTR"), although the mechanism by which this inhibition might be mediated is unknown. Accordingly, preferred ribonucleoside analogues in accordance with the invention are those which exhibit the property of inhibiting retroviral transcription. Methods of assaying compounds for such a property are disclosed herein and may be employed by those skilled in the art to identify ribonucleoside analogues possessing this desirable characteristic. The effect of inhibiting retroviral transcription is that there are fewer RNA copies of the viral genome present in an infected cell: accordingly, at a given concentration of ribonucleoside analogue there are fewer RNA copies of the viral genome which are likely to escape incorporation of the mutagenic ribonucleoside analogue. A preferred compound in this regard is that denoted by the structure shown in FIG. 2 (referred to as rP, for simplicity), and the corresponding base analogue (P) and the corresponding ribonucleotide analogue rPP (especially the triphosphate, rPTP).

[0036] It will be appreciated that increasing the mutation rate in the manner of the first aspect of the invention can, in accordance with the concept of error catastrophe, cause a significant increase in the number of non-viable viral particles produced, especially when the ribonucleoside analogue is present at an effective concentration for a plurality of cycles of viral replication, since mutations will accumulate in the viral genome over time. In contrast, although the ribonucleoside analogue will probably be incorporated into messenger RNA in the host cell (resulting in production of mutant polypeptides), mRNA is rapidly turned over and degraded and therefore will not accumulate mutations over time. Equally, the ribonucleoside analogue will generally not be incorporated into the DNA genome of the host cell or, if incorporated, will be removed by the "house-keeping" enzymes which are

responsible for maintaining the integrity of the host cell genome. Accordingly, the method of the invention finds therapeutic application in the treatment of RNA virus infections.

[0037] Thus, in a second aspect the invention provides a method of treating an RNA virus infection in a human or animal subject, the method comprising administering to a subject infected with an RNA virus, an effective amount of a ribonucleoside analogue in accordance with general formula I or II.

[0038] In a third aspect the invention provides a pharmaceutical composition comprising an effective amount of a ribonucleoside analogue in accordance with general formula I or II in admixture with a physiologically acceptable excipient, diluent or carrier.

[0039] In a fourth aspect the invention provides a method of making a pharmaceutical composition, the method comprising mixing a ribonucleoside analogue in accordance with general formula I or II with a physiologically acceptable excipient, diluent or carrier. The method optionally includes the further step of packaging the composition in unitary dose form.

[0040] In a fifth aspect the invention provides for use of a ribonucleoside analogue according to general formula I or II in the preparation of a medicament to treat an RNA viral infection in a human or animal subject.

[0041] The ribonucleoside analogues of use in one or more of the various aspects of the invention will preferably be substantially soluble in water and be readily capable of entering virally-infected cells. Where the compound consists of a base analogue, the compound may generally be ribosylated and phosphorylated in vivo, or at least intracellularly. Where the compound is a ribonucleoside analogue it may typically be phosphorylated to form a ribonucleotide analogue. Possibly it is the ribonucleotide analogue which is integrated into the RNA genome of the RNA virus (or DNA virus which replicates via an essential genomic RNA intermediate), although it is important to note that the inventors make no assumption as to mode of action. Thus the active compound may be the base analogue and/or the ribonucleoside analogue and/or the ribonucleotide analogue. Specifically in respect of integrating retroviruses, such as HIV, the presence of the active compound probably leads to mutation by the viral reverse transcriptase during DNA synthesis prior to integration into the host genome, which mutations are not recognisable by repair enzymes; over several cycles such mutations will accumulate.

[0042] Pharmaceutical compositions in accordance with the invention may be administered by any conventional route known to those skilled in the art. The preferred route is oral administration, but the composition may alternatively be administered, for example, intravenously, subcutaneously, transdermally, or via a rectal or intranasal route.

[0043] The composition may be administered as a solid (e.g. in the form of a tablet, pill, capsule, powder or the like) or may be a liquid (e.g. solution, suspension), semi-solid (e.g. a gel), aerosol or spray.

[0044] Physiologically acceptable excipients, diluents and carriers are well known to those skilled in the art of medical formulations and include, for example: saline, Ringer's solution, distilled water, dextrose solution, calcium carbonate, silicates, starches and modified starches and plant-derived polysaccharide gums and gels (e.g. xanthan gum; carrageenans and the like).

[0045] An "effective amount" of a ribonucleoside analogue or pharmaceutical composition comprising the same is understood to mean, for present purposes, an amount sufficient to cause a measurable decrease in the viral titer in suitable samples (e.g. blood, saliva, or tissue biopsy specimens) taken from the subject, or a measurable decrease in the amount of viral antigen detected in

such samples, or a discernible amelioration in the symptoms of the viral infection experienced by the subject. Methods of obtaining suitable samples from a subject, and of analysing same to measure viral titer or viral antigen (e.g. by ELISA or other immunoassay) are well known to those skilled in the art.

[0046] The appropriate dose of the ribonucleoside analogue will depend on several factors, such as the body mass of the subject, level of toxicity (if any) of the analogue, the age of the subject and the severity of the viral infection (and/or any additional condition afflicting the subject). Guidance is given in U.S. Pat. Number 6,063,628. Conveniently the dose of ribonucleoside analogue will be in the range 1 mg/Kg body weight to 500 mg/Kg per day, preferably in the range 5 mg/Kg-250 mg/Kg, more preferably 10 mg-100 mg/Kg.

[0047] Typically a dose at the lower end of the acceptable range is administered to the subject and, if there is no discernible improvement in the subject's condition, the dose may be increased if there are no contra-indications, until an effective dose is achieved. By such trial and error clinicians will readily be able to find an appropriate dose for any particular subject.

[0048] Advantageously the pharmaceutical composition in accordance with the invention may comprise more than one anti-viral agent. For instance, the composition may comprise a plurality of different ribonucleoside analogues, each being in accordance with general formula I or II defined above.

[0049] Additionally, or alternatively, the composition may comprise one or more antiviral agents which do not conform to general formula I or II. Examples include conventional antiviral agents such as ribavirin, AZT, HIV protease inhibitors, and compounds of the sort explicitly disclosed in U.S. Pat. Number 6,063,628. The other aspects of the invention may conveniently reflect such embodiments.

[0050] Alternatively, the method of treating the subject may comprise separate administration of a further pharmaceutical composition comprising an additional anti-viral agent, such as those aforementioned, or a substance that reduces the intra-cellular concentration of the naturally-occurring ribonucleotide(s) with which the ribonucleoside analogue must compete for incorporation into the viral RNA genome.

[0051] The invention will now be further described by way of illustrative example and with reference to the accompanying drawings, in which:

[0052] FIG. 1 shows the structural formula of a deoxyribonucleoside analogue, dP;

[0053] FIG. 2 shows the structural formula of a ribonucleoside analogue rP, the `ribo` equivalent of the compound shown in FIG. 1;

[0054] FIGS. 3-11 show the structural formula of various ribonucleoside analogues in accordance with general formula I or II identified above;

[0055] FIGS. 12 and 13 are graphs of p24 antigen (ng/ml) against time (in days);

[0056] FIG. 14 is a schematic representation of a transcription system of use in screening ribonucleoside analogues for use in the present invention; and

[0057] FIG. 15 is a bar chart showing the amount of RNA transcript produced (in femtomoles) by a transcription system of the sort illustrated in FIG. 14, in the presence or absence of a ribonucleotide analogue rPTP.

EXAMPLES

Example 1

Synthesis of Purine Ribonucleoside Analogues

[0058] The inventors synthesised several ribonucleoside analogues in accordance with general formula I or II, and also a ribonucleoside (N.sup.4-hydroxycytidine) specifically mentioned by Loeb et al in U.S. Pat. Number 6,063,628. For brevity the synthesised compounds are referred to herein as JA22-JA31. An additional compound, JA21, was synthesised and used as a control. JA21 is the deoxyribonucleoside equivalent of the ribonucleoside analogue JA22. JA29 is the compound indicated by Loeb et al as being useful in increasing the mutation frequency of RNA viruses (although no data are presented by Loeb et al in support of that assertion). The table below (Table 1) indicates the systematic name of each of the compounds referred to as JA21-JA31, and also any trivial name if such a name has been used previously.

TABLE 1

Compound Number	Systematic Name	Trivial Name (if any)
JA21	6-(2-deoxy-β-D-ribofuranosyl)-3,4-dihydro-8H-pyrimido[4,5-c][1,2] oxazin-7-one	dP
JA22	6-(β-D-ribofuranosyl)-3,4-dihydro-8H-pyrimido[4,5-c][1,2] oxazin-7-one	rP
JA23	2-amino-N.sup.6-methyladenosine	--
JA24	N.sup.6-amino-9-β-D-ribofuranosyl-2,6-diaminopurine	
JA25	N.sup.6-aminoadenosine	--
JA26	N.sup.6-methoxyadenosine	--
JA27	N.sup.6-amino-N.sup.6-methyladenosine	--
JA28	N.sup.6hydroxyadenosine	--
JA29	N.sup.4-hydroxycytidine	--
JA30	2-amino-N.sup.6-hydroxyadenosine	--
JA31	2-amino-6-methoxyamino-9-β-D-ribofuranosylpurine	rK

The structures of compounds JA21-JA31 are shown in FIGS. 1-11 respectively.

[0059] As examples of compounds of use in accordance with the present invention and in accordance with general formula I or II, JA23-JA31 (except JA29) were synthesised from 6-chloro-9-β-D-ribofuranosylpurine or 2-amino-6-chloro-9-β-D-ribofuranosylpurine (Aldrich). These were treated with the following available reagents: hydroxylamine hydrochloride, methoxyamine hydrochloride, N,O-dimethyl hydroxylamine hydrochloride, anhydrous hydrazine and N-methylhydrazine.

Example of General Method

[0060] 2-Amino-6-methoxyamino-9-β-D-ribofuranosylpurine-(JA31)

[0061] Synthesis of this compound has been described previously (Ueda, et al. Chemical Pharm. Bulletin, 1978, 26, 2122).

[0062] The 2-amino-6-chloropurine derivative (302 mg; 1 mMol), methoxyamine hydrochloride (160 mg; 4 equivalent) and triethylamine (0.2 ml) in ethanol (9 ml) were heated overnight at 85° C. in a sealed bottle shielded from light. Complete reaction was judged by thin layer chromatography (tlc.) in 20%

MeOH--CH.sub.2Cl.sub.2. Evaporation in vacuo then trituration with ethanol of the residue gave the product as a white powder (90%) which gave needles on crystallisation from dioxan-water.

[0063] In the synthesis of compounds from 6-chloro-9-β-D-ribofuranosylpurine the reaction conditions required lower temperatures and shorter reaction times.

[0064] The synthesis of compounds in accordance with general formula I or II has been described in a number of other publications:

[0065] JA23, 24, 27 and 30, see Taito et al, (1964 Chemical Pharm. Bulletin 12, 951);

[0066] JA25, see Johnson et al, (1958 J. Amer. Chemical Society 80, 699);

[0067] JA26, see Fuji et al, 1991 Chemical Pharm. Bulletin 39, 39);

[0068] JA28, see Giner-Sorolla et al, (1966 J. Med. Chemical 9, 143).

[0069] All of the compounds synthesised were recrystallized, characterised by nmr and shown to be substantially pure.

Example 2

[0070] Following synthesis, the various compounds were tested in vitro for toxicity, by measuring the IC.sub.50 (i.e. the concentration which caused 50% inhibition) in respect of the inhibitory effects of the compounds on the proliferation of human T-lymphocytes (CEM/O cells). The results are shown below in Table 2.

TABLE 2

Compound	IC.sub.50.sup.a (μM)
JA21	690 ± 14
JA22	698 ± 11
JA23	622 ± 8
JA24	62 ± 6
JA25	12 ± 3
JA26	44 ± 2
JA27	17 ± 2
JA28	156 ± 15
JA29	16 ± 1
JA30	78 ± 3
JA31	377 ± 62

.sup.a50% inhibitory concentration.

Example 3

[0071] Having established an indication of the toxicity of the various compounds, the ribonucleoside analogues were then tested to determine whether they exhibited any effect on the replication of RNA viruses in in vitro cell cultures.

[0072] HIV-1 infected CEM cells were subcultured every 4-5 days in the presence of sub-toxic concentrations (in the range of 10-20% of their respective IC.sub.50 value) of the compounds under test. At each sub-culture, cell-free supernatant (10-20 μl) was transferred to fresh 1 ml cell cultures. At regular intervals the cultures were inspected microscopically to assess the extent of any cytopathic effect (giant cell formation). As an alternative, it

is also possible to perform an immunoassay to quantify viral p24 production.

[0073] The preliminary results for up to 7 passages are shown below in Table 3.

TABLE 3

Drug	Concentration (μM)	Passage number.sup.a,b 1	2	3	4	5	6	7
JA-21 (dP)	400	100	100	25	50	37	12	6
JA-22 (rP)	400	100	100	100	100	100	100	100
JA-23	400	100	100	12	25	3	0	0
JA-24	10	100	100	25	100	100	100	25
	4	100	100	19	100	100	100	12
JA-25	2	100	100	100	100	100	100	100
	0.8	100	100	87	100	100	100	100
JA-26	10	100	100	25	100	100	12	3
	4	100	100	25	100	100	12	3
JA-27	4	100	100	6	25	25	0	0
JA-28	40	100	100	50	100	100	75	6
	20	100	100	19	100	100	100	100
JA-29	2	100	100	25	100	100	100	100
	0.8	100	100	12	100	100	100	100
JA-30	10	100	100	25	100	100	100	50
JA-31 (rK)	50	100	100	0	0	0	0	0
	20	100	100	3	19	12	0	0
Control (no drug)	--	100	100	25	100	100	100	100

.sup.aSubcultivation of the drug-treated HIV-1(III.sub.B) exposed CEM cell cultures was performed every 5 days.
.sup.bData represent the percentage of cytopathic effect (giant cell formation) as recorded microscopically.

[0074] The results show that JA31 (rK) in particular is effective at inhibiting the replication of RNA viruses as exemplified by HIV. Other compounds also appear to be moderately effective: JA23 and JA27 in particular. JA29, mentioned by Loeb et al, does not demonstrate any antiviral activity in this assay.

[0075] In order to demonstrate that the reduction in viral titer, as evidenced by the decline in observed cytopathic effect, is due to induction of accumulated mutations in the viral genome, proviral DNA will be isolated from the cultures and the sequence of the reverse transcriptase gene determined by routine DNA sequencing reactions. The determined sequence can be compared with the known sequence of the original input virus and the number of mutations calculated relative to those in the virus in the control culture.

[0076] Further Studies

[0077] Mechanism of action studies will be undertaken to study the effect of the 5'-triphosphate derivatives of the ribonucleotide analogues on human and viral RNA polymerase-catalysed RNA synthesis and HIV-1 reverse transcriptase-catalysed conversion of nucleotide analogue-containing RNA to DNA. Also, the substrate affinity of recombinantly produced ribonucleoside kinases for the ribonucleoside analogues and their efficacy of conversion of the ribonucleoside analogues to their 5'-monophosphates will be determined. Insights in the above-mentioned characteristics of the ribonucleos(t)ide analogues should allow optimisation of the viral mutagenicity of the compounds whilst ideally minimising toxicity, so as to enhance the therapeutic usefulness

of the compounds. Masked phosphate derivatives of the ribonucleoside analogues will also be investigated.

Example 4

[0078] Other experiments were performed using ribonucleoside analogues present as the phosphorylated ribonucleotide. For example, the triphosphate of rK, referred to as rKTP, was synthesised as described by Moriyama et al, (1998 Nucl. Acids Res. 26, 2105). The triphosphate of rP, rPTP, was prepared in an analogous manner.

[0079] These two compounds were then investigated for an inhibitory effect on the replication of HIV in persistently infected Molt4/IIIB cells, or acutely infected MT4/IIIB cells. The compounds were compared with equivalent concentrations of dideoxycytidine (ddC) or dideoxycytosine triphosphate (ddCTP), or a negative control (no drug).

[0080] Effect on Persistently-Infected Cells

[0081] 2 nmol of the relevant drug (final concentration 1 μM) was mixed with 4 μl of liposome DMRIE-C (Gibco BRL) in 800 l of serum-free RPMI 1640 medium (Sigma). After incubating for 45 minutes at room temperature, 10.sup.5 Molt4/IIIB cells in 200 l of serum-free RPMI 1640 medium were added and held at 37° C. for 4 hours. At the end of this interval 1 ml of RPMI 1640 medium supplemented with 20% serum was added and the mixture cultured at 37° C. at 24 hrs, 72 hrs and 5 days, aliquots of supernatant were collected and the amount of p24 antigen present was quantified using the Lumipuls.TM. system (Fuji Rebio). The results are shown in FIG. 12.

[0082] Effect on Acutely-Infected Cells

[0083] 10.sup.3 pfu of HIV.sub.IIIB were added to 10.sup.5 MT4 cells in 1 ml of serum-free RPMI 1640 medium and incubated for 90 minutes at 37°. The cells were washed three times in serum-free medium and resuspended in 200 μl of serum-free medium. Drug administration (100 nM final concentration), culture and p24 assay were then performed as above. The results are shown in FIG. 13.

[0084] FIG. 12 is a graph of viral titer (as measured by amount of p24 antigen in ng/ml) against time (in days), showing the results for cultures of persistently-infected Molt4/IIIB cells with no drug ("Control", triangles), or 1M final concentration of ddC (open circles), ddCTP (open squares), PTP (filled circles) or rKTP (filled squares). FIG. 13 is a graph of p24 antigen (in ng/ml) against time (in days) for cultures of acutely-infected MT4/IIIB cells in the presence of drugs at a final concentration of 100 nM, the legend is as for FIG. 12.

[0085] The results illustrated in FIGS. 12 and 13 show that both rKTP and rPTP significantly inhibit viral replication compared to controls, and reduce viral titers to levels comparable with known dideoxy chain-terminating compounds which inhibit reverse transcriptase. The ribonucleotide analogues of the invention are believed, however, to be less vulnerable to the evolution of resistant virus strains.

Example 5

[0086] Mutations Induced on HIV-1 pol Gene of MT4/IIIB by PTP or KTP

[0087] Genomic DNA of MT4/IIIB was collected 3 days after drug administration (final concentration was 100 nM) by DNeasy Tissue Kit (QIAGEN). A part of the pol gene (873 bp) was amplified by 2-step polymerase chain reaction (2-step PCR). 1 st PCR reaction mixture contained 50 pmol of forward primer-1 (5'-GGTACAGTATTAGTAGGACC-3'), 50 pmol of reverse primer-1 (5'-

TGTGTCAGTTAGGGTGACAA-3'), 200 μM each dNTP, 5 μl of collected genomic DNA, 3 U of Pfu DNA polymerase (Promega), 20 mM Tris-HCl pH 8.8 10 mM KCl, 10 mM (NH.sub.4).sub.2SO.sub.4, 2 mM MgSO.sub.4, 0.1% Triton X-100, and 0.1 μg/μl BSA in 50 μl and was divided into five tubes. Each mixture was incubated for 2 min at 95° C. Then it was applied to a thermal cycle reaction comprising 95° C., 1 min; 52° C., 30 sec; and 72° C., 2 min for 45 cycles, followed by incubation for 5 min at 72° C., the cycling controlled by Mastercycler gradient apparatus (Eppendorf).

[0088] The 2nd PCR reaction mixture contained 50 pmol of forward primer-2 (5'CAGGGATTAGATATCAGTAC-3'), 50 pmol of reverse primer-2 (5'-TCTCTAACTGGTACCATAAT-3'), 200 μM each dNTP, 1 μl of 1st PCR product from each tube, 1.5 U of Pfu DNA polymerase (Promega), 20 mM Tris-HCl pH 8.8, 10 mM KCl, 10 mM (NH.sub.4).sub.2SO.sub.4, 2 mM MgSO.sub.4, 0.1% Triton X-100, and 0.1 g/l BSA in 50 μl and was similarly divided into five tubes. Each mixture was incubated for 2 min at 95° C. Then it was applied to a thermal cycle reaction comprising 95° C., 1 min; 52° C.; 30 sec; and 72° C., 2 min. for 30 cycles, followed by incubation for 5 min at 72° C.

[0089] Divided 2nd PCR products (total twenty-five tubes for one sample) were collected into one tube, ethanol precipitated, and digested by EcoRV and KpnI. After ligation with pBluescriptIISK(+), the constructed plasmid was introduced into Escherichia coli DH5 by electroporation. Cloned PCR product was then applied to standard DNA sequencing reaction using forward sequencing primer (5'-AAAGCTGGAGCTCCACCGCG-3') or reverse sequencing primer (5'-AGTGAGCGCGCGTAATACGACTCACTA-TAGGGCGAATTGG-3') and the Thermo Sequenase II dye terminator cycle sequencing kit (Amersham Pharmacia Biotech). Electrophoresis and analysis was carried out by DNA sequencer 378A (Applied Biosystems).

[0090] The sequencing revealed that the presence of either rPTP or rKTP increased the mutation frequency, according to the results presented in Table 4 below.

TABLE 4

	Transition G-to-A	Transversion T-to-A	Total	Sequenced (nucleotides)	Frequency (+10.sup.-3)
Control	1	2	3	3,113	0.96
PTP	3	6	9	4,809	1.9
KTP	--	6	6	4,642	1.3

Example 6

[0091] The inventors constructed an in vitro transcription system promoted by HIV 5'-long terminal repeat (LTR) using HeLa nuclear extract supplemented with HIV Tat protein. A 668 bp PCR product from pLTR-luc plasmid, which includes HIV 5'-LTR promoter and luciferase gene, was used as a DNA template for a transcription reaction. From this template, 310-mer run-off transcripts were produced. The system is illustrated schematically in FIG. 14.

[0092] The effect of incorporation of rPTP, at 200M, in transcription reactions was investigated. The reaction mixture contained conventional nucleotide triphosphates (ATP, GTP, CTP and UTP) at 50 M (the GTP being .sup.32P radio labelled with 10 Ci of radioactivity), +/-200 M PTP, 100 ng of template DNA, 40 Units of RNase inhibitor (Wako), 1 l of diluted (1:20) Tat protein and 8 units of HeLa cell nuclear extract in 1+transcription buffer (10 mM HEPES pH 7.9, 2 mM DTT, 6.25 M ZnSO.sub.4, 100 mM KCl, 20% glycerol, 4 mM MgCl.sub.2). The reaction mixture was incubated for 10 minutes at 30° C. and the reaction terminated by adding 7 volumes of stop solution (300 mM Tris. HCl pH 7.4, 300 mM sodium acetate, 0.5% SDS, 2 mM EDTA, 3 g/ml tRNA). Transcripts were

then purified by phenol/chloroform extraction and ethanol precipitation. Whole samples were loaded on a 5% polyacrylamide gel and subjected to electrophoresis (40W, for 2 hours). The intensity of the bands corresponding to the 310 mer transcripts was measured by a BAS-2000 image analyser (Fujifilm). The intensity of the band in the control reaction (no PTP) was considered to be 100%. The results of the control reaction and the rPTP reaction are shown in FIG. 15 below. This shows that the presence of rPTP at 200 M reduced the amount of transcript produced by nearly 50%.

Example 7

[0093] The foregoing examples are primarily concerned with demonstrating an inhibitory effect of various ribonucleoside analogues on the replication of HIV. However, as explained above, the compositions of the present invention should also find use in combatting infections caused by "conventional" RNA viruses.

[0094] In general terms, those skilled in the art can readily ascertain the likely efficacy of various ribonucleoside analogues, by incubating an RNA virus of interest with suitable susceptible host cells in the presence or absence of various concentrations of the ribonucleoside analogue(s) under test, and using an appropriate parameter to measure the amount of viral replication. Suitable parameters might include, for example, an assay of numbers of pfu of virus after a certain length of incubation, or an assay of viral antigen, or amount of cytopathic effect.

[0095] A specific example of a suitable screening assay, to identify compounds effective in inhibiting replication of poliovirus, is set forth below. Essentially similar protocols, suitably modified, could be employed to screen for compounds active against other "conventional" RNA viruses.

[0096] HeLa cells are propagated in D-MEM/F-12 media (Invitrogen) supplemented with dialyzed fetal bovine serum (2%, Invitrogen). For poliovirus infection assays, cells are plated in 24-well dishes (1+10.sup.5 cells/well) 48 h before the experiment, test compounds are preloaded 24 hours before the experiment, and cells are infected with 2000 pfu poliovirus per well. Upon reaching 100% cytopathic effect (CPE), virus is harvested by freeze-thaw and serial dilutions are plaqued on 6-well dishes of confluent HeLa S3 cells. After 72 hours, cells are stained with Crystal Violet (0.2% in 20% ethanol) to visualize plaques. Time to 100% CPE is recorded as the number of days required for poliovirus (2000 pfu) to cause visibly complete cell death.

What is claimed is:

1. A pharmaceutical composition comprising a ribonucleoside analogue in accordance with general formula I or II ##STR3## where: n=1-4, preferably 2-4, X.sup.1.dbd.N or CH or CR.sup.5 X.sup.2.dbd.N or S or CR.sup.5 X.sup.3.dbd.NR.sup.6 or O or S or R.sup.6 when X.sup.2.dbd.N or X.sup.3.dbd.NR.sup.6 or R.sup.6 when X.sup.2.dbd.S, and X.sup.3 is absent when X.sup.2.dbd.CR.sup.5 R.sup.1.dbd.H or alkyl or aryl or alkaryl or acyl R.sup.2.dbd.H or alkyl or aryl or alkaryl or acyl; when X.sup.2.dbd.S, R.sup.2 is absent; R.sup.3.dbd.H or NR.sup.5R.sup.6 or NR.sup.5NR.sup.5R.sup.6 or NR.sup.5OR.sup.5 R.sup.5.dbd.H or alkyl or alkenyl or alkynyl or aryl or alkaryl or acyl R.sup.6.dbd.H or alkyl or alkenyl or alkynyl or aryl or alkaryl or acyl and R.sup.4.dbd.H or ##STR4## wherein Z=O or S or CH.sub.2 or CHF or CF.sub.2 or NR.sup.5 X.sup.4.dbd.OH or F R.sup.7.dbd.H or PO.sub.3.sup.2- or P.sub.2O.sub.6.sup.3- or P.sub.3O.sub.9.sup.4- or a masked phosphate derivative, in admixture with a physiologically acceptable excipient, diluent or carrier.

2. A pharmaceutical composition according to claim 1, wherein the ribonucleoside analogue is provided as the base analogue or the ribonucleotide analogue.

3. A pharmaceutical composition according to claim 2, wherein the ribonucleoside analogue comprises a purine analogue.

4. A pharmaceutical composition according to claim 1 which, following administration to a human or animal subject, gives rise to a chemical entity which, inside a cell of the subject, is incorporated into a RNA molecule by an RNA polymerase present in the cell.

5. A pharmaceutical composition according to claim 4, wherein the cell is infected by an RNA virus, the RNA molecule is an RNA copy of at least part of the viral genomic nucleic acid molecule.

6. A pharmaceutical composition according to claim 1, wherein the ribonucleoside analogue is such that Z is O.

7. A pharmaceutical composition according to preceding claim 1, wherein X.sup.2 is N.

8. A pharmaceutical composition according to claim 1, wherein X.sup.3 is O or comprises N.

9. A pharmaceutical composition according to claim 1, wherein X.sup.4 is OH.

10. A pharmaceutical composition according to claim 1, wherein X.sup.2 is N and X.sup.3 is NH.sub.2.

11. A pharmaceutical composition according to claim 10, comprising a ribonucleoside analogue having the structure shown in FIG. 3 or FIG. 7.

12. A pharmaceutical composition according to claim, wherein X.sup.2 is N, X.sup.3 is O and R.sup.1 is alkyl.

13. A pharmaceutical composition according to claim 12, wherein R.sup.1 is methyl or substituted methyl.

14. A pharmaceutical composition according to claim 13, comprising a ribonucleoside analogue having the structure shown in FIG. 11, or the corresponding ribonucleotide analogue.

15. A method of making a pharmaceutical composition suitable for treating an RNA virus infection in a human or animal subject, the method comprising the step of mixing a ribonucleoside analogue in accordance with general formula I or II with a physiologically acceptable excipient, diluent or carrier.

16. A method according to claim 15, performance of which results in the preparation of a pharmaceutical composition in accordance with claim 1.

17. A method according to claim 15, comprising the step of combining a plurality of different ribonucleoside analogues, each analogue being in accordance with general formula I or II.

18. A method according to claim 15, comprising the step of including in the pharmaceutical composition a further antiviral agent.

19. A method according to claim 18, wherein the further antiviral agent is an inhibitor of reverse transcriptase.

20. A method according to claim 18, wherein the further antiviral agent is active against HIV or other retrovirus.

21. A method according to claim 15, further comprising the step of packaging

the composition in unitary dose form.

22. Use of a ribonucleoside analogue according to general formula I or II in the preparation of a medicament to treat an RNA viral infection in a human or animal subject.

23. Use of a ribonucleoside analogue according to general formula I or II in the preparation of a pharmaceutical composition according to claim 1 to treat an RNA viral infection in a human or animal subject.

24. A method of treating an RNA virus infection in a human or animal subject, the method comprising the step of administering to a subject infected with an RNA virus an effective amount of a ribonucleoside analogue in accordance with general formula I or II.

25. A method according to claim 24, comprising administering to the subject a pharmaceutical composition in accordance with claim 1.

26. Use of a ribonucleoside analogue in the preparation of a medicament to treat an RNA virus infection in a human or animal subject by inhibiting LTR-mediated transcription of viral nucleic acid.

27. A use according to claim 26, wherein the ribonucleoside analogue has the structure shown in FIG. 2 or is the corresponding ribonucleotide analogue.

28. A use according to claim 26, wherein the medicament is a pharmaceutical composition according to claim 1.

29. A pharmaceutical composition according to claim 1 which, when administered to a human or animal subject infected with an RNA virus, inhibits replication of the virus and/or causes an increase in the mutation frequency of the virus.

30. A pharmaceutical composition according to claim 1 which, when administered to a human or animal subject infected with an RNA virus, causes inhibition of LTR-mediated transcription of viral nucleic acid.

ISSUE U.S. PATENT CLASSIF.:
  MAIN: 514/046.000
  SECONDARY: 514/047.000; 514/267.000; 514/263.400; 514/081.000; 514/263.200; 514/263.230; 514/265.100
CURRENT U.S. PATENT CLASSIF.:
  MAIN: 514/045.000; 514/046.000
  SECONDARY: 514/042.000; 514/043.000; 514/046.000; 514/047.000; 514/048.000; 514/081.000; 514/263.200; 514/263.230; 514/263.400; 514/265.100; 514/267.000
INT. PATENT CLASSIF.: [7]
  MAIN: A61K031-7076
  SECONDARY: A61K031-675; A61K031-519; A61K031-52
  INITIAL: A61K0031-7076 [ICM,7]; A61K0031-7042 [ICM,7,C*]; A61K0031-675 [ICS,7]; A61K0031-519 [ICS,7]; A61K0031-52 [ICS,7]; A61K0031-519 [ICS,7,C*]
  INITIAL-2: A61K0031-70 [I,A]
  RECLASS: A61K0031-519 [I,C*]; A61K0031-519 [I,A]; A61K0031-52 [I,A]; A61K0031-675 [I,C*]; A61K0031-675 [I,A]; A61K0031-7042 [I,C*]; A61K0031-7076 [I,A]; A61K0031-70 [I,A]; A61K0031-70 [I,C]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION

```
FULL ESTIMATED COST                                    36.75     347.66

FILE 'CAPLUS' ENTERED AT 13:15:36 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 4 Mar 2008  VOL 148 ISS 10
FILE LAST UPDATED: 3 Mar 2008  (20080303/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> d hist

     (FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008)

     FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
L1              STRUCTURE UPLOADED
L2           12 S L1 SAM
L3              STRUCTURE UPLOADED
L4            7 S L3 SAM
L5            0 S L4 NOT L2
L6          150 S L3 FULL

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008
L7          180 S L6
L8          176 DUP REM L7 (4 DUPLICATES REMOVED)

     FILE 'CAPLUS' ENTERED AT 13:01:47 ON 04 MAR 2008
L9          176 S L8

     FILE 'REGISTRY' ENTERED AT 13:07:18 ON 04 MAR 2008
L10          21 S L6 AND METHOXY?
L11           0 S L10 AND 2-AMINO

     FILE 'CAPLUS, MEDLINE' ENTERED AT 13:11:32 ON 04 MAR 2008
L12          33 S 19399-25-8
L13          32 DUP REM L12 (1 DUPLICATE REMOVED)

     FILE 'USPATFULL' ENTERED AT 13:12:27 ON 04 MAR 2008
L14           0 S 19399-25-8
L15          22 S L6

     FILE 'CAPLUS' ENTERED AT 13:15:36 ON 04 MAR 2008

=> d l9 1-10

L9   ANSWER 1 OF 176  CAPLUS  COPYRIGHT 2008 ACS on STN
```

AN 2007:1396539 CAPLUS
DN 148:33977
TI Preparation of adenosine a2b receptor agonists for use as prodrugs treating diseases in mammals
IN Baraldi, Pier Giovanni; Borea, Pier Andrea; Moorman, Allan R.; Preti, Delia
PA Italy
SO U.S. Pat. Appl. Publ., 19pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2007281902	A1	20071206	US 2007-757559	20070604
PRAI US 2006-811350P	P	20060606		

OS MARPAT 148:33977

L9 ANSWER 2 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:1363946 CAPLUS
DN 148:11441
TI Preparation of nucleobases and nucleosides as antiparasitic agents
IN Loakes, David; Too, Kathleen
PA Medical Research Council, UK
SO PCT Int. Appl., 69pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007135380	A2	20071129	WO 2007-GB1820	20070517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRAI GB 2006-10317	A	20060524		

OS MARPAT 148:11441

L9 ANSWER 3 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:689151 CAPLUS
DN 147:268327
TI Anti-malarial activity of N6-modified purine analogues
AU Too, Kathleen; Brown, Daniel M.; Bongard, Emily; Yardley, Vanessa; Vivas, Livia; Loakes, David
CS Laboratory of Molecular Biology, Medical Research Council, Cambridge, CB2 2QH, UK
SO Bioorganic & Medicinal Chemistry (2007), 15(16), 5551-5562
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Ltd.
DT Journal
LA English
OS CASREACT 147:268327
RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:257713 CAPLUS
DN 146:317162
TI Preparation of 3',5'-cyclic nucleoside analogs as antiviral agents for treatment of HCV
IN Gunic, Esmir; Hong, Zhi; Girardet, Jean-Luc
PA Valeant Research & Development, USA
SO PCT Int. Appl., 158pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007027248	A2	20070308	WO 2006-US19114	20060516
	WO 2007027248	A3	20071129		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
PRAI	US 2005-681332P	P	20050516		
	US 2005-748130P	P	20051206		
	US 2006-785238P	P	20060322		

OS MARPAT 146:317162

L9 ANSWER 5 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:245615 CAPLUS
DN 146:474750
TI Three-Dimensional Quantitative Structure-Activity Relationship of Nucleosides Acting at the A3 Adenosine Receptor: Analysis of Binding and Relative Efficacy
AU Kim, Soo-Kyung; Jacobson, Kenneth A.
CS Molecular Recognition Section Laboratory of Bioorganic Chemistry, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), Bethesda, MD, 20892, USA
SO Journal of Chemical Information and Modeling (2007), 47(3), 1225-1233
CODEN: JCISD8; ISSN: 1549-9596
PB American Chemical Society
DT Journal
LA English
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:1337633 CAPLUS
DN 146:229551
TI Synthesis and Biological Evaluation of Novel 1-Deoxy-1-[6-[((hetero)arylcarbonyl)hydrazino]- 9H-purin-9-yl]-N-ethyl-β-D-ribofuranuronamide Derivatives as Useful Templates for the Development of A2B Adenosine Receptor Agonists
AU Baraldi, Pier Giovanni; Preti, Delia; Tabrizi, Mojgan Aghazadeh; Fruttarolo, Francesca; Romagnoli, Romeo; Carrion, Maria Dora; Cara, Luisa

Carlota Lopez; Moorman, Allan R.; Varani, Katia; Borea, Pier Andrea
CS Dipartimento di Scienze Farmaceutiche and Dipartimento di Medicina Clinica e Sperimentale-Sezione di Farmacologia, Universita di Ferrara, Ferrara, 44100, Italy
SO Journal of Medicinal Chemistry (2007), 50(2), 374-380
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 146:229551
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:1206880 CAPLUS
DN 145:505705
TI Preparation of 6-hydrazinopurine 2'-methyl ribonucleosides and nucleotides as antiviral agents for treatment of HCV
IN Gunic, Esmir; Rong, Frank
PA Valeant Research & Development, USA
SO PCT Int. Appl., 21pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006122207	A1	20061116	WO 2006-US18135	20060510
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI US 2005-679780P	P	20050510		

OS MARPAT 145:505705
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:487681 CAPLUS
DN 145:141022
TI Structure-activity relationship for nucleoside analogs as inhibitors or substrates of adenosine kinase from Mycobacterium tuberculosis
AU Long, Mary C.; Parker, William B.
CS Department of Pharmacology and Toxicology, University of Alabama at Birmingham, Birmingham, AL, USA
SO Biochemical Pharmacology (2006), 71(12), 1671-1682
CODEN: BCPCA6; ISSN: 0006-2952
PB Elsevier B.V.
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:337894 CAPLUS
DN 144:384968
TI Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
IN Shokat, Kevan
PA Princeton University, USA
SO U.S., 54 pp., Cont.-in-part of U.S. Ser. No. 797,522.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 7026461	B1	20060411	US 2001-985061	20011101
	WO 9835048	A2	19980813	WO 1998-US2522	19980209
	WO 9835048	A3	19990107		
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	EP 1607481	A1	20051221	EP 2004-76255	19980209
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2004248675	A	20040909	JP 2004-87151	20040324
	US 2006263800	A1	20061123	US 2006-358947	20060222
PRAI	US 1997-797522	B2	19970207		
	US 1997-46727P	P	19970516		
	WO 1998-US2522	W	19980209		
	US 1999-367065	A3	19991117		
	EP 1998-906268	A3	19980209		
	JP 1998-534999	A3	19980209		
	US 2001-985061	A3	20011101		

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:104561 CAPLUS
DN 144:184716
TI Adenosine A3 receptor agonists for the treatment of dry eye disorders including Sjogren's syndrome
IN Fishman, Pnina; Lorber, Ilana; Cohn, Ilan; Reitblat, Tatiana
PA Can-Fite Biopharma Ltd., Israel
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006011130	A1	20060202	WO 2005-IL762	20050718
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,				

```
            CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
            GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM
     EP 1778239          A1    20070502    EP 2005-762145         20050718
        R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
     US 2007099865       A1    20070503    US 2006-604905         20061128
PRAI US 2004-591628P     P     20040728
     WO 2005-IL762       W     20050718
OS   MARPAT 144:184716
RE.CNT  7     THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d ibib 11-20
YOU HAVE REQUESTED DATA FROM FILE 'USPATFULL' - CONTINUE? (Y)/N:y



L15  ANSWER 11 OF 22  USPATFULL on STN
ACCESSION NUMBER:       2003:134579  USPATFULL
TITLE:                  Methods and compositions for reducing ischemic injury
                        of the heart by administering adenosine receptor
                        agonists and antagonists
INVENTOR(S):            Liang, Bruce T., Merion Station, PA, UNITED STATES
                        Jacobson, Kenneth A., Silver Springs, MD, UNITED STATES

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 2003092668      A1   20030515
                        US 6586413         B2   20030701
APPLICATION INFO.:      US 2001-800274     A1   20010305  (9)
RELATED APPLN. INFO.:   Continuation-in-part of Ser. No. US 1999-423129, filed
                        on 5 Nov 1999, GRANTED, Pat. No. US 6211165
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   DANN DORFMAN HERRELL & SKILLMAN, SUITE 720, 1601 MARKET
                        STREET, PHILADELPHIA, PA, 19103-2307
NUMBER OF CLAIMS:       73
EXEMPLARY CLAIM:        1
NUMBER OF DRAWINGS:     37 Drawing Page(s)
LINE COUNT:             1626
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15  ANSWER 12 OF 22  USPATFULL on STN
ACCESSION NUMBER:       2003:47639  USPATFULL
TITLE:                  Engineered protein kinases which can utilize modified
                        nucleotide triphosphate substrates
INVENTOR(S):            Shokat, Kevan M., San Francisco, CA, United States
PATENT ASSIGNEE(S):     Princeton University, Princeton, NJ, United States
                        (U.S. corporation)

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 6521417         B1   20030218
APPLICATION INFO.:      US 2000-568466          20000510  (9)
RELATED APPLN. INFO.:   Division of Ser. No. US 367065, now patented, Pat. No.
                        US 6390821, issued on 21 May 2002 Continuation-in-part
                        of Ser. No. US 1997-797522, filed on 7 Feb 1997, now
                        abandoned
```

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Morgan, Lewis & Bockius LLP
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 44 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 3199
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 13 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2002:265921 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, UNITED STATES
PATENT ASSIGNEE(S): Princeton University. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002146797	A1	20021010
	US 7049116	B2	20060523
APPLICATION INFO.:	US 2001-985157	A1	20011101 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-367065, filed on 17 Nov 1999, GRANTED, Pat. No. US 6390821 A 371 of International Ser. No. WO 1998-US2522, filed on 9 Feb 1998, UNKNOWN A 371 of International Ser. No. US 1997-797522, filed on 7 Feb 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 3234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 14 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2002:115382 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, United States
PATENT ASSIGNEE(S): Princeton University, Princeton, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6390821	B1	20020521
	WO 9835048		19980813
APPLICATION INFO.:	US 1999-367065		19991117 (9)
	WO 1998-US2522		19980209
			19991117 PCT 371 date

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-797522, filed on 7 Feb 1997, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nashed, Nashaat T.
LEGAL REPRESENTATIVE: Morgan, Lewis & Bockius LLP
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 41 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 3084
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 15 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2002:28125 USPATFULL
TITLE: Engineered protein kinases which can utilize modified nucleotide triphosphate substrates
INVENTOR(S): Shokat, Kevan M., San Francisco, CA, UNITED STATES
PATENT ASSIGNEE(S): Princeton University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002016976	A1	20020207
APPLICATION INFO.:	US 2001-752723	A1	20010103 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-367065, filed on 17 Nov 1999, PENDING A 371 of International Ser. No. WO 1998-US2522, filed on 9 Feb 1998, UNKNOWN Continuation of Ser. No. US 1997-797522, filed on 7 Feb 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-46727P	19970516 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS, 1800 M STREET NW, WASHINGTON, DC, 20036-5869
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 3057
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 16 OF 22 USPATFULL on STN
ACCESSION NUMBER: 2001:226606 USPATFULL
TITLE: Methods for reducing ischemic injury of the heart via the sequential administration of monophosphoryl lipid A and adenosine receptor agents
INVENTOR(S): Liang, Bruce T., Merion Station, PA, United States
Jacobson, Kenneth A., Silver Springs, MD, United States
PATENT ASSIGNEE(S): Trustees of the University of Pennsylvania, Philadelphia, PA, United States (U.S. corporation)
The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6329349	B1	20011211
	WO 9920284		19990429
APPLICATION INFO.:	US 2000-530164		20000424 (9)
	WO 1998-US22515		19981023

```
                                                  20000424  PCT 371 date
                                                  20000420  PCT 102(e) date
DOCUMENT TYPE:          Utility
FILE SEGMENT:           GRANTED
PRIMARY EXAMINER:       Weddington, Kevin E.
LEGAL REPRESENTATIVE:   Dann, Dorfman, Herrell and Skillman
NUMBER OF CLAIMS:       30
EXEMPLARY CLAIM:        1
NUMBER OF DRAWINGS:     10 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT:             957
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15  ANSWER 17 OF 22  USPATFULL on STN
ACCESSION NUMBER:       2001:48039  USPATFULL
TITLE:                  Methods and compositions for reducing ischemic injury
                        of the heart by administering adenosine receptor
                        agonists and antagonists
INVENTOR(S):            Liang, Bruce T., Merion Station, PA, United States
                        Jacobson, Kenneth A., Silver Springs, MD, United States
PATENT ASSIGNEE(S):     The Trustees of the University of Pennsylvania,
                        Philadelphia, PA, United States (U.S. corporation)
                        The United States of America as represented by the
                        Department of Health and Human Services, Washington,
                        DC, United States (U.S. corporation)

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 6211165         B1   20010403
                        WO 9850047             19981112
APPLICATION INFO.:      US 1999-423129         19991105  (9)
                        WO 1998-US9031         19980508
                                               19991105  PCT 371 date
                                               19991105  PCT 102(e) date

                               NUMBER        DATE
                        ------------------ --------
PRIORITY INFORMATION:   US 1997-46030P     19970509 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           Granted
PRIMARY EXAMINER:       Henley, III, Raymond
LEGAL REPRESENTATIVE:   Dann, Dorman, Herrell and Skillman
NUMBER OF CLAIMS:       60
EXEMPLARY CLAIM:        1
NUMBER OF DRAWINGS:     41 Drawing Figure(s); 30 Drawing Page(s)
LINE COUNT:             1364
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15  ANSWER 18 OF 22  USPATFULL on STN
ACCESSION NUMBER:       97:107061  USPATFULL
TITLE:                  A.sub.3 adenosine receptor agonists
INVENTOR(S):            Jacobson, Kenneth A., Silver Spring, MD, United States
                        Jeong, Heaok Kim, Rockville, MD, United States
                        Siddiqi, Suhaib M., Gaithersburg, MD, United States
                        Johnson, Carl R., Detroit, MI, United States
                        Secrist, III, John A., Birmingham, AL, United States
                        Tiwari, Kamal N., Birmingham, AL, United States
PATENT ASSIGNEE(S):     The United States of America as represented by the
                        Department of Health and Human Services, Washington,
                        DC, United States (U.S. government)

                             NUMBER       KIND    DATE
                        ---------------- ------ --------
```

PATENT INFORMATION: US 5688774 19971118
APPLICATION INFO.: US 1995-396111 19950228 (8)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-274628, filed on 13 Jul 1994 which is a continuation-in-part of Ser. No. US 1993-163324, filed on 6 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-91109, filed on 13 Jul 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kunz, Gary L.
LEGAL REPRESENTATIVE: Leydig, Voit & Mayer, Ltd.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2283
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 19 OF 22 USPATFULL on STN
ACCESSION NUMBER: 97:14686 USPATFULL
TITLE: Inhibitor of vascular permeability enhancer
INVENTOR(S): Nagaoka, Akinobu, Kawanishi, Japan
Imamoto, Tetsuji, Kitakatsuragi-gun, Japan
Asano, Tsuneo, Kawanishi, Japan
Sugiura, Yoshihiro, Tsurumai-nishimachi, Japan
Goto, Giichi, Osaka, Japan
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5604210		19970218
APPLICATION INFO.:	US 1995-456723		19950601 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-120947	19940602

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Henley, III, Raymond
LEGAL REPRESENTATIVE: Fitzpatrick, Cella, Harper & Scinto
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
LINE COUNT: 1067
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 20 OF 22 USPATFULL on STN
ACCESSION NUMBER: 95:60363 USPATFULL
TITLE: 2-chloro-N.sup.6 -substituted adenosines, their pharmaceutical compositions, and activity in treating ischemias
INVENTOR(S): Knutsen, Lars J. S., Vedb k, Denmark
Lau, Jesper, Farum, Denmark
PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5430027		19950704
APPLICATION INFO.:	US 1993-61892		19930514 (8)

	NUMBER	DATE

PRIORITY INFORMATION: DK 1992-62592 19920514
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Crane, L. Eric
LEGAL REPRESENTATIVE: Zelson, Steve T., Lambiris, Elias J.
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1,14,16,18
LINE COUNT: 910
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l9 13 ial1

L9 ANSWER 13 OF 176 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:216597 CAPLUS
DOCUMENT NUMBER: 142:291323
ENTRY DATE: Entered STN: 11 Mar 2005
TITLE: Compositions and methods for the treatment of severe acute respiratory syndrome (SARS)
INVENTOR(S): Hardee, Greg; Dellamary, Luis
PATENT ASSIGNEE(S): Isis Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 217 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K
CLASSIFICATION: 1-5 (Pharmacology)
Section cross-reference(s): 63
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020885	A2	20050310	WO 2004-US16196	20040521
WO 2005020885	A3	20050804		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-472774P P 20030521
PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005020885	ICM	A61K
	IPCI	A61K [ICM,7]
	IPCR	A61K [I,S]; A61K0031-7042 [I,C*]; A61K0031-7052 [I,A]; C07H0019-00 [I,C*]; C07H0019-22 [I,A]

ABSTRACT:
The invention provides compns. and methods for treating a coronavirus infection, especially a SARS CoV infection. The compns. comprise an antiviral nucleoside or mimetic thereof, or an antiviral antisense agent, in a form suitable for pulmonary or nasal delivery. The methods comprise administration to a patient in need thereof the effective amount of an antiviral composition by

pulmonary or nasal instillation.

SUPPL. TERM: antisense oligonucleotide antiviral pulmonary nasal microemulsion Coronavirus infection SARS

INDEX TERM: Infection
Respiratory system, disease
(SARS (severe acute respiratory syndrome); compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Adhesives
(biol.; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Physiological saline solutions
(buffered; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(capsules, enteric-coated; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Aerosols
Antiviral agents
Canis familiaris
Coronavirus
Emulsifying agents
Human
Immunostimulants
Microemulsions
Peptidomimetics
Permeation enhancers
SARS coronavirus
(compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Antisense oligonucleotides
Nucleosides, biological studies
Oligomers
ROLE: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Fatty acids, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Physiological saline solutions
(isotonic; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(liposomes; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(nasal; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(ointments, creams, water-in-oil; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(oral; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(powders, dry powder; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems

(pulmonary; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(rectal; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(solns., nasal; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(solns.; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Drug delivery systems
(suppositories; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: Infection
(viral; compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: 50-44-2 50-91-9 51-21-8 53-82-7 53-85-0 54-25-1 54-42-2 56-65-5, biological studies 58-60-6 58-61-7, Adenosine, biological studies 58-63-9, Inosine 58-96-8, Uridine 59-14-3 61-19-8, 5'-Adenylic acid, biological studies 63-39-8, Uridine 5'-(tetrahydrogen triphosphate) 65-47-4, Cytidine 5'-(tetrahydrogen triphosphate) 69-33-0 70-00-8 73-03-0 73-04-1 85-31-4 86-01-1 132-06-9, Inosine 5'-(tetrahydrogen triphosphate) 146-77-0 146-92-9 147-94-4 154-42-7 315-30-0 320-67-2 342-69-8 362-76-5 365-08-2 519-37-9 550-33-4 574-25-4 606-58-6 784-71-4 840-50-6 961-07-9 1175-34-4 1463-10-1 1476-82-0 1500-85-2, 1H-Pyrrolo[2,3-d]pyrimidin-4-amine 1818-71-9 1867-73-8 1927-31-7 2004-07-1 2022-85-7 2096-10-8 2133-80-4 2140-65-0 2140-71-8 2140-72-9 2140-76-3 2140-79-6 2226-74-6 2504-55-4 2564-35-4 2620-62-4 2627-69-2 2677-93-2 2710-64-7 2862-16-0 2946-39-6 3056-17-5 3080-29-3 3083-77-0 3131-60-0 3181-39-3 3258-05-7 3413-66-9 3608-58-0 3616-24-8 3680-69-1 3714-60-1 3731-55-3 3736-77-4 3868-32-4 3868-33-5 3881-21-8 4097-22-7 4097-25-0 4209-30-7 4291-63-8 4294-16-0 4338-47-0 4372-67-2 4546-54-7 4914-73-2 4945-58-8 5116-37-0 5399-87-1 5536-17-4 5536-30-1 5626-99-3 5983-09-5 6038-59-1 6198-30-7 6253-56-1 6273-05-8 6736-58-9 6742-12-7 7013-16-3 7057-27-4 7057-33-2 7057-38-7 7084-29-9 7207-56-9 7481-89-2 7724-76-7 10058-66-9 10212-20-1 10299-44-2 10300-22-8 10300-27-3 10356-76-0 10578-79-7 13007-43-7 13048-95-8 13089-44-6 13153-25-8 13153-32-7 13255-58-8 13276-42-1 13364-95-9 13406-53-6 13877-76-4 14042-38-7 14675-48-0 14689-85-1 15135-22-5 15176-29-1 15397-12-3 15425-09-9 15981-92-7 16220-07-8 16321-98-5 16409-13-5 16710-12-6 16719-46-3 16754-80-6 16755-07-0 17110-94-0 17210-68-3 17489-53-1 17902-23-7 18417-89-5 18549-34-3 18620-92-3, 1H-Pyrrolo[2,3-d]pyrimidine-2,4-diamine 18736-53-3 19916-78-0 20244-86-4 20649-46-1 20724-73-6 21090-30-2 21134-35-0 21193-80-6 22342-50-3 22423-10-5 22423-26-3 23001-60-7 23169-37-1 23192-64-5 23197-94-6 23197-98-0 23326-38-7 23567-97-7 23899-77-6 24027-80-3 24958-06-3 26001-38-7 26194-89-8 26287-69-4 26383-05-1 26524-60-7 26578-09-6 26666-45-5 26775-39-3 27089-56-1 28072-46-0 28361-08-2 28361-09-3 29428-50-0

30516-87-1 30545-89-2 30747-21-8 30948-06-2
30993-48-7 31698-14-3 32412-61-6 32512-90-6
34198-45-3 34218-84-3 35003-10-2 35463-35-5
35542-01-9 35638-82-5 35874-49-8 36791-04-5
37070-11-4 37482-17-0 38819-10-2 39809-25-1
40026-13-9 40627-31-4 40725-89-1 43170-89-4
49564-60-5 50585-22-3 50924-49-7 51034-68-5
51293-40-4 51373-46-7 51375-21-4 51385-35-4
52523-04-3 52622-00-1 53181-10-5 53602-90-7
53696-59-6 53766-80-6 53910-25-1 54429-42-4
54883-91-9 55673-61-5 55968-37-1 56039-11-3
56405-86-8 56720-66-2 56738-08-0 56964-83-1
56973-12-7 57100-18-2 57204-04-3 57294-74-3
57596-78-8
ROLE: PAC (Pharmacological activity); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: 57944-13-5 58083-93-5 58151-88-5 58343-13-8
58699-62-0 59259-76-6 59277-89-3 59652-91-4
60102-52-5 60107-24-6 60247-46-3 61210-21-7
61373-42-0 61468-88-0 61468-89-1 61468-90-4
61468-92-6 61556-44-3 61556-45-4 61671-80-5
62160-23-0 62317-32-2 63142-71-2 64098-83-5
64183-27-3 64272-68-0 64842-55-3 65114-35-4
65358-15-8 65444-12-4 66097-68-5 66341-18-2
66813-29-4 66840-02-6 66840-03-7 68045-12-5
68345-70-0 68707-89-1 68726-28-3 68745-45-9
68924-32-3 69093-69-2 69123-98-4 69199-40-2
69304-42-3 69304-47-8 69383-05-7 69471-51-8
69504-13-8 69655-05-6 70057-98-6 70255-52-6
70639-65-5 70723-11-4 71376-96-0 72409-30-4
72490-81-4 73449-06-6 73449-07-7 73611-48-0
74134-92-2 74134-94-4 74134-95-5 74420-77-2
75059-22-2 75479-64-0 75567-73-6 75607-67-9
76260-96-3 77112-18-6 77181-69-2 78582-17-9
78590-09-7 78842-13-4 79896-97-2 79974-34-8
80160-11-8 80791-87-3 80791-88-4 82410-32-0
82989-82-0 83379-31-1 83498-78-6 84017-61-8
84445-38-5 84558-94-1 85326-06-3 85395-67-1
86392-75-8 86781-83-1 87515-42-2 87781-96-2
87781-99-5 87782-05-6 88187-94-4 88847-89-6
88970-14-3 90015-85-3 90053-17-1 90053-18-2
90053-19-3 90358-21-7 90597-20-9 91590-85-1
91741-82-1 92562-94-2 92586-35-1 94059-38-8
95058-81-4 95140-33-3 96022-82-1 96360-26-8
97845-72-2 98259-20-2 98870-11-2 98921-75-6
100024-02-0 100644-69-7 100644-70-0 100698-52-0
101515-08-6 101803-00-3 102225-92-3 102225-93-4
102226-15-3 102226-19-7 102731-45-3 103847-02-5
104291-16-9 104291-17-0 105208-87-5 105223-61-8
105582-76-1 105659-32-3 106448-30-0 106941-25-7
109923-61-7 109923-62-8 109923-63-9 113852-37-2
113886-70-7 113886-71-8 113980-89-5 114262-49-6
115294-99-0 115494-60-5 116525-89-4 119410-95-6
120057-51-4 120083-53-6 120244-38-4 120372-54-5
120595-76-8 121196-59-6 121683-01-0 121804-03-3
122799-38-6 122857-65-2 123402-20-0 123402-21-1
123402-24-4 123402-25-5 123402-26-6 123402-27-7
124499-05-4 124738-83-6 124738-85-8 124903-22-6
125217-37-0 125676-75-7 127047-59-0 129532-77-0
129982-32-7 131981-26-5 132034-45-8 133635-32-2

133648-44-9 133766-26-4 133766-28-6 134680-32-3
136003-97-9 136208-63-4 136833-96-0 136834-10-1
136834-13-4 136834-17-8 138949-77-6 139209-26-0
139307-94-1 141196-84-1 141232-24-8 142674-90-6
143028-96-0 143028-98-2 143028-99-3 143527-07-5
143616-58-4 144602-09-5 146897-64-5 147127-20-6
152540-75-5 152540-76-6 153186-26-6 153186-29-9
153186-32-4 156270-75-6 159494-27-6 159494-28-7
159954-54-8 160526-61-4 160526-67-0 160526-82-9
160526-91-0 160526-95-4 160527-01-5 162901-99-7
165381-34-0 165381-35-1 165381-44-2 165381-57-7
165381-58-8 168427-35-8 168427-36-9 168427-74-5
168696-31-9 168696-32-0 168696-33-1 168696-37-5
169516-61-4 172163-62-1 173061-05-7 173061-06-8
173061-08-0 173061-09-1 173061-11-5 173061-16-0
ROLE: PAC (Pharmacological activity); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute
respiratory syndrome)
INDEX TERM: 173061-21-7 173061-27-3 173061-29-5 173061-30-8
173061-31-9 173061-32-0 173061-34-2 173061-35-3
173061-37-5 173061-38-6 175545-25-2 175787-23-2
179817-95-9 179817-96-0 181356-39-8 181949-08-6
182495-80-3 182888-00-2 183311-62-8 186839-90-7
188525-24-8 194034-59-8 195705-49-8 196604-52-1
196604-58-7 199191-01-0 199859-58-0 199938-75-5
199938-83-5 200435-92-3 201295-39-8 201528-75-8
202002-10-6 202186-97-8 205109-12-2 205171-05-7
205171-11-5 205592-79-6 206055-67-6 206055-69-8
206269-27-4 209734-56-5 213623-48-4 213623-63-3
213623-65-5 214048-87-0 215942-59-9 223777-15-9
223777-16-0 232589-06-9 240126-69-6 244105-55-3
244109-12-4 255835-15-5 256224-02-9 256224-13-2
259527-88-3 262417-55-0 303197-30-0 303970-61-8
308832-80-6 313477-37-1 313477-43-9 313477-49-5
317820-43-2 318247-09-5 318247-10-8 322728-17-6
323178-58-1 324001-41-4 324001-42-5 327623-83-6
329716-85-0 333336-02-0 346686-66-6 352446-01-6
353264-15-0 353264-16-1 353264-18-3 353264-19-4
353271-34-8 353271-35-9 355805-46-8 355805-52-6
355805-55-9 364732-85-4 374750-27-3 374750-28-4
374750-29-5 374750-30-8 374750-32-0 375348-28-0
377048-29-8 383897-60-7 413576-86-0 415705-27-0
439579-22-3 439579-34-7 439579-38-1 443642-28-2
443642-29-3 443642-33-9 443642-34-0 443642-37-3
443642-38-4 443642-40-8 443642-41-9 443642-42-0
443642-43-1 443642-44-2 443642-45-3 443642-46-4
443642-47-5 443642-48-6 443642-49-7 443642-53-3
443642-56-6 443642-60-2 443642-63-5 443642-66-8
443642-67-9 443642-74-8 443642-80-6 443642-83-9
443642-89-5 443642-95-3 443642-96-4 443642-98-6
443643-09-2 443643-11-6 443643-17-2 443643-26-3
443643-28-5 443643-29-6 443643-31-0 443643-37-6
444018-74-0 444018-76-2 444018-78-4 444018-79-5
444018-82-0 444018-84-2 444018-85-3 444018-87-5
444018-88-6 444018-89-7 444018-92-2 444018-95-5
444018-99-9 444019-02-7 444019-03-8 444019-05-0
444019-09-4 444019-24-3 444019-29-8 444019-30-1
444019-31-2 444019-38-9 444019-39-0 444019-40-3
444019-41-4 444019-42-5 444019-43-6 444019-44-7
444019-46-9 444019-47-0 444019-48-1 444019-50-5
444019-52-7 444019-53-8 444019-54-9 444019-57-2

444019-58-3 444019-59-4 444019-60-7 444019-61-8
444019-62-9 444019-63-0 444019-64-1 444019-65-2
444019-67-4 444019-68-5 444019-70-9 444019-71-0
444019-72-1 444019-73-2 444019-74-3 444019-75-4
444019-78-7 444019-79-8 444019-81-2 444019-82-3
444019-83-4 444019-84-5 444019-87-8 444019-88-9
444019-99-2 444020-04-6 444020-09-1 444020-64-8
444020-69-3 444020-74-0 444020-75-1 444021-29-8
444021-39-0 444021-64-1 444021-90-3 444021-94-7
444021-98-1 444022-22-4 444788-89-0 444788-92-5
444789-41-7 467444-76-4 473278-54-5 491575-37-2
497064-74-1 497819-40-6 497820-15-2 497820-60-7
501013-42-9 501013-43-0 501013-54-3 501013-55-4
548776-93-8 565450-95-5 566912-59-2 582313-35-7
582313-49-3 582313-51-7 582313-58-4 618097-71-5
622380-26-1 622380-27-2 622380-95-4 627863-71-2
ROLE: PAC (Pharmacological activity); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute
respiratory syndrome)

INDEX TERM: 632367-76-1 632367-90-9 634207-51-5 640281-90-9
640725-73-1 640725-74-2 640725-77-5 641571-40-6
655245-88-8 686301-76-8 690269-86-4 690269-87-5
714249-82-8 760965-53-5 764644-12-4 781672-21-7
784151-35-5 784151-48-0 790240-68-5 793655-42-2
809277-13-2 809277-14-3 809277-17-6 809277-18-7
809277-20-1 809277-21-2 809277-23-4 809277-27-8
847647-09-0 847647-10-3 847647-11-4 847647-12-5
847647-13-6 847647-14-7 847647-15-8 847647-16-9
847647-17-0 847647-18-1 847647-19-2 847647-20-5
847647-21-6 847647-22-7 847647-23-8 847647-24-9
847647-25-0 847647-26-1 847647-27-2 847647-28-3
847647-29-4 847647-30-7 847647-31-8 847647-32-9
847647-33-0 847647-34-1 847647-35-2 847647-36-3
847647-37-4 847647-38-5 847647-39-6 847647-40-9
847647-43-2 847647-45-4 847647-48-7 847647-54-5
847647-55-6 847647-56-7 847647-57-8 847647-58-9
847647-59-0 847647-60-3 847647-61-4 847647-62-5
847647-63-6 847647-64-7 847647-65-8 847647-67-0
847647-68-1 847647-69-2 847647-70-5 847647-71-6
847647-72-7 847647-73-8 847647-74-9 847647-75-0
847647-76-1 847647-77-2 847647-78-3 847647-79-4
847647-80-7 847647-81-8 847647-82-9 847647-83-0
847647-84-1 847647-85-2 847647-86-3 847647-87-4
847647-88-5 847647-89-6 847647-90-9 847647-91-0
847647-92-1 847647-93-2 847647-94-3 847647-95-4
847647-96-5 847647-97-6 847647-98-7 847647-99-8
847648-00-4 847648-01-5 847648-02-6 847648-03-7
847648-04-8 847648-05-9 847648-06-0 847648-07-1
847648-08-2 847648-09-3 847648-10-6 847648-11-7
847648-12-8 847648-13-9 847648-14-0 847648-15-1
847648-16-2 847648-17-3 847648-18-4 847648-19-5
847648-20-8 847648-21-9 847648-22-0 847648-23-1
847648-24-2 847648-25-3 847648-26-4 847648-27-5
847648-28-6 847648-29-7 847648-30-0 847648-31-1
847648-32-2 847648-33-3 847648-34-4 847648-35-5
847648-36-6 847648-37-7 847648-38-8 847648-39-9
847648-40-2 847648-41-3 847648-42-4 847648-43-5
847648-44-6 847648-45-7 847648-46-8 847648-47-9
847648-48-0 847648-49-1 847648-50-4 847648-51-5
847648-52-6 847648-53-7 847648-54-8 847648-55-9
847648-56-0 847648-57-1 847648-58-2 847648-59-3

847648-60-6 847648-61-7 847648-62-8 847648-63-9
847648-64-0 847648-65-1 847648-66-2 847648-67-3
847648-68-4 847648-69-5 847648-70-8 847648-71-9
847648-72-0 847648-73-1 847648-74-2 847648-75-3
847648-76-4 847648-77-5 847648-78-6, biological studies
847648-79-7, biological studies 847648-80-0 847648-81-1
847648-82-2 847648-83-3 847648-84-4 847648-85-5
847648-86-6 847648-87-7 847648-88-8 847648-89-9
847648-90-2 847648-91-3 847648-92-4 847648-93-5
847648-94-6 847648-95-7 847648-96-8 847648-97-9
847648-98-0 847648-99-1 847649-00-7 847649-01-8
847649-02-9 847649-03-0 847649-04-1 847649-05-2
847649-06-3 847649-07-4 847649-08-5 847649-09-6
847649-10-9 847649-11-0 847649-12-1 847649-13-2
847649-14-3 847649-15-4 847649-16-5 847649-17-6
847649-18-7 847649-19-8 847649-20-1 847649-21-2
847649-22-3 847649-23-4 847649-24-5 847649-25-6
847649-26-7 847649-27-8
ROLE: PAC (Pharmacological activity); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute
respiratory syndrome)

INDEX TERM:

847649-28-9 847649-29-0 847649-30-3 847649-31-4
847649-32-5 847649-33-6 847649-34-7 847649-35-8
847649-36-9 847649-37-0 847649-38-1 847649-39-2
847649-40-5 847649-41-6 847649-42-7 847649-43-8
847649-44-9 847649-45-0 847649-46-1 847649-47-2
847649-48-3 847649-49-4 847649-50-7 847649-51-8
847649-52-9 847649-53-0 847649-54-1 847649-55-2
847649-56-3 847649-57-4 847649-58-5 847649-59-6
847649-60-9 847649-61-0 847649-62-1 847649-63-2
847649-64-3 847649-65-4 847649-66-5 847649-67-6
847649-68-7 847649-69-8 847649-70-1 847649-71-2
847649-72-3 847649-73-4 847649-74-5 847649-75-6
847649-76-7 847649-77-8 847649-78-9 847649-79-0
847649-80-3 847649-81-4 847649-82-5 847649-85-8
847649-86-9 847649-87-0 847649-88-1 847649-89-2
847649-90-5 847649-91-6 847649-92-7 847649-93-8
847649-94-9 847649-95-0 847649-96-1 847649-97-2
847649-98-3 847649-99-4 847650-00-4 847650-01-5
847650-02-6 847650-03-7 847650-04-8 847650-05-9
847650-06-0 847650-07-1 847650-08-2 847650-09-3
847650-10-6 847650-11-7 847650-12-8 847650-13-9
847650-14-0 847650-15-1 847650-16-2 847650-17-3
847650-18-4 847650-19-5 847650-20-8 847650-21-9
847650-22-0 847650-23-1 847650-24-2 847650-25-3
847650-26-4 847650-27-5 847650-28-6 847650-29-7
847650-30-0 847650-31-1 847650-32-2 847650-33-3
847650-34-4 847650-35-5 847650-36-6 847650-37-7
847650-38-8 847650-39-9 847650-40-2 847650-41-3
847650-42-4 847650-43-5 847650-44-6 847650-45-7
847650-46-8 847650-47-9 847650-48-0 847650-49-1
847650-50-4 847650-51-5 847650-52-6 847650-53-7
847650-54-8 847650-55-9 847650-56-0 847650-57-1
847650-58-2 847650-59-3 847650-60-6 847650-61-7
847650-62-8 847650-63-9 847650-64-0 847650-65-1
847650-66-2 847650-67-3 847650-68-4 847650-69-5
847650-70-8 847650-71-9 847650-72-0 847650-73-1
847650-74-2 847650-75-3 847650-76-4 847650-77-5
847650-78-6 847650-79-7 847650-80-0 847650-81-1
847650-82-2 847650-83-3 847650-84-4 847650-85-5
847650-86-6 847650-87-7 847650-88-8 847650-89-9

847650-90-2 847650-91-3 847650-92-4 847650-93-5
847650-94-6 847650-95-7 847650-96-8 847650-97-9
847650-98-0 847650-99-1 847651-00-7 847651-01-8
847651-02-9 847651-03-0 847651-04-1 847651-05-2
847651-06-3 847651-07-4 847651-08-5 847651-09-6
847651-10-9 847651-11-0 847651-12-1 847651-13-2
847651-14-3 847651-15-4 847651-16-5 847651-17-6
847651-18-7 847651-19-8 847651-20-1 847651-21-2
847651-22-3 847651-23-4 847651-25-6 847651-26-7
847651-27-8 847651-28-9 847651-29-0 847651-30-3
847651-31-4 847651-32-5 847651-33-6 847651-34-7
847651-35-8 847651-36-9 847651-37-0
847651-38-1 847651-39-2 847651-40-5 847651-41-6
847651-42-7 847651-43-8 847651-44-9 847651-45-0
847651-46-1 847651-47-2 847651-48-3 847651-49-4
847651-50-7 847651-51-8 847651-52-9 847651-53-0
847651-54-1 847651-55-2 847651-56-3 847651-57-4
847651-58-5 847651-59-6 847651-60-9 847651-61-0
847651-62-1 847651-63-2 847651-64-3 847651-65-4
847651-66-5
ROLE: PAC (Pharmacological activity); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: 847651-67-6 847651-68-7 847651-69-8 847651-70-1
847651-71-2 847651-72-3 847651-73-4 847651-74-5
847651-75-6 847651-76-7 847651-77-8 847651-78-9
847651-79-0 847651-80-3 847651-81-4 847651-82-5
847651-83-6 847651-84-7 847651-85-8 847651-86-9
847651-87-0 847651-88-1 847651-89-2 847651-90-5
847651-91-6 847651-92-7 847651-93-8 847651-94-9
847651-95-0 847651-96-1 847651-97-2 847651-98-3
847651-99-4 847652-00-0 847652-01-1 847652-02-2
847652-03-3 847652-04-4 847652-05-5 847652-06-6
847652-07-7 847652-08-8 847652-09-9 847652-10-2
847652-11-3 847652-12-4 847652-13-5 847652-14-6
847652-15-7 847652-16-8 847652-17-9 847652-18-0
847652-19-1 847652-20-4 847652-21-5 847652-22-6
847652-23-7 847652-24-8 847655-33-8 847655-34-9
847655-35-0 847655-36-1 847658-55-3 847663-83-6
847663-84-7
ROLE: PAC (Pharmacological activity); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute respiratory syndrome)

INDEX TERM: 629-25-4, Sodium laurate 1002-62-6, Sodium caprate
2646-38-0, Sodium chenodeoxycholate 9004-38-0, Cellulose acetate phthalate 331257-52-4, ISIS 2302
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and methods for treatment of severe acute respiratory syndrome)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.23	376.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION

CA SUBSCRIBER PRICE -0.80 -0.80

FILE 'REGISTRY' ENTERED AT 13:18:23 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1
DICTIONARY FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 847651-35-8/RN

L16 1 847651-35-8/RN

=> SET NOTICE 1 DISPLAY

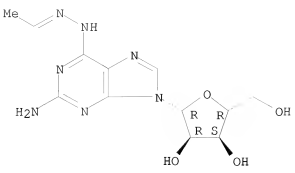
NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L16 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 847651-35-8 REGISTRY
CN Guanosine, ethylidenehydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H17 N7 O4
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); USES (Uses)

Absolute stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> d hist

(FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008)

FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
L1 STRUCTURE UPLOADED
L2 12 S L1 SAM
L3 STRUCTURE UPLOADED
L4 7 S L3 SAM
L5 0 S L4 NOT L2
L6 150 S L3 FULL

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008
L7 180 S L6
L8 176 DUP REM L7 (4 DUPLICATES REMOVED)

FILE 'CAPLUS' ENTERED AT 13:01:47 ON 04 MAR 2008
L9 176 S L8

FILE 'REGISTRY' ENTERED AT 13:07:18 ON 04 MAR 2008
L10 21 S L6 AND METHOXY?
L11 0 S L10 AND 2-AMINO

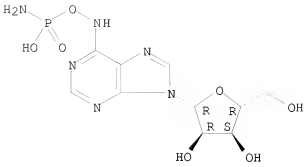
FILE 'CAPLUS, MEDLINE' ENTERED AT 13:11:32 ON 04 MAR 2008
L12 33 S 19399-25-8
L13 32 DUP REM L12 (1 DUPLICATE REMOVED)

FILE 'USPATFULL' ENTERED AT 13:12:27 ON 04 MAR 2008
L14 0 S 19399-25-8
L15 22 S L6

FILE 'CAPLUS' ENTERED AT 13:15:36 ON 04 MAR 2008

FILE 'USPATFULL' ENTERED AT 13:16:54 ON 04 MAR 2008

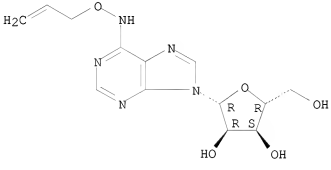
```
     FILE 'CAPLUS' ENTERED AT 13:16:55 ON 04 MAR 2008

     FILE 'REGISTRY' ENTERED AT 13:18:23 ON 04 MAR 2008
L16            1 S 847651-35-8/RN
                 SET NOTICE 1 DISPLAY
                 SET NOTICE LOGIN DISPLAY

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     2.46     379.41

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -0.80

FILE 'REGISTRY' ENTERED AT 13:19:14 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    3 MAR 2008  HIGHEST RN 1006431-93-1
DICTIONARY FILE UPDATES:   3 MAR 2008  HIGHEST RN 1006431-93-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d 16 1-10

L6   ANSWER 1 OF 150  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   958777-69-0  REGISTRY
ED   Entered STN:  19 Dec 2007
CN   INDEX NAME NOT YET ASSIGNED
FS   STEREOSEARCH
MF   C10 H15 N6 O7 P
SR   Other Sources
       Database: ChemIDplus (National Library of Medicine)

Absolute stereochemistry.
```



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 2 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 946125-45-7 REGISTRY
ED Entered STN: 06 Sep 2007
CN Inosine, O-2-propen-1-yloxime (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H17 N5 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

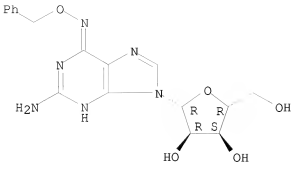


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 3 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 946125-42-4 REGISTRY
ED Entered STN: 06 Sep 2007
CN Guanosine, O-(phenylmethyl)oxime (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H20 N6 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

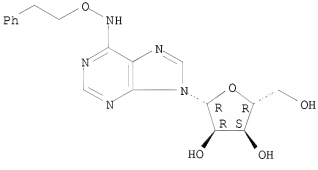


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 4 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 935701-73-8 REGISTRY
ED Entered STN: 24 May 2007
CN Inosine, O-(2-phenylethyl)oxime (CA INDEX NAME)
OTHER NAMES:
CN N-(2-Phenylethoxy)adenosine
FS STEREOSEARCH
MF C18 H21 N5 O5
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

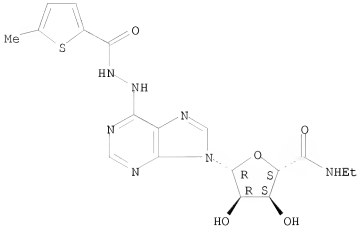


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 5 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 924282-06-4 REGISTRY
ED Entered STN: 02 Mar 2007
CN 2-Thiophenecarboxylic acid, 5-methyl-, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N7 O5 S
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.

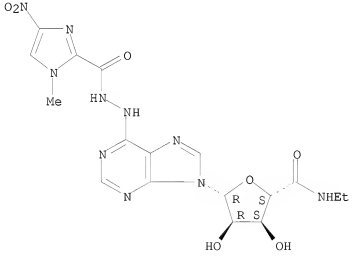


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 6 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 924282-05-3 REGISTRY
ED Entered STN: 02 Mar 2007
CN 1H-Imidazole-2-carboxylic acid, 1-methyl-4-nitro-, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H20 N10 O7
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.



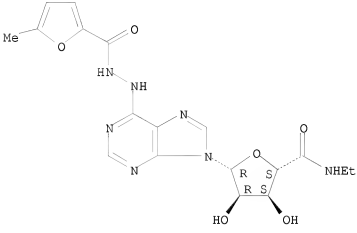
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 7 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 924282-04-2 REGISTRY
ED Entered STN: 02 Mar 2007
CN 2-Furancarboxylic acid, 5-methyl-, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N7 O6
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.

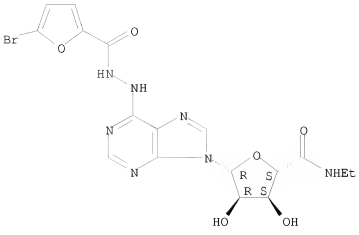


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 8 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 924282-03-1 REGISTRY
ED Entered STN: 02 Mar 2007
CN 2-Furancarboxylic acid, 5-bromo-, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H18 Br N7 O6
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.

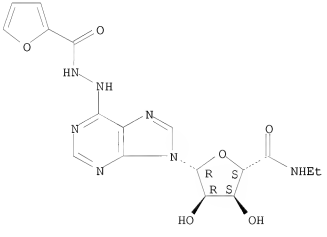


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 9 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 924282-02-0 REGISTRY
ED Entered STN: 02 Mar 2007
CN 2-Furancarboxylic acid, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H19 N7 O6
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.



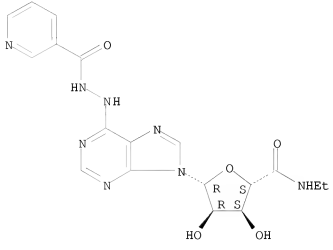
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 10 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN

RN 924282-01-9 REGISTRY
ED Entered STN: 02 Mar 2007
CN 3-Pyridinecarboxylic acid, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H20 N8 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.

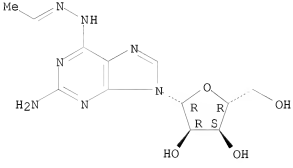


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

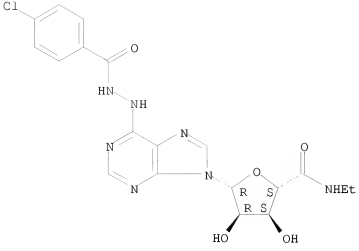
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 11-20
1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):16
ANSWER NUMBERS NOT CORRECTLY SPECIFIED
Enter an answer number, Example: 10
several answer numbers, Example: 3,7,10
a range of answer numbers, Example: 5-10
or a combination of these. Example: 3,7,9-10,15
ENTER ANSWER NUMBER OR RANGE (1):11-20
1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):16
ANSWER NUMBERS NOT CORRECTLY SPECIFIED
Enter an answer number, Example: 10
several answer numbers, Example: 3,7,10
a range of answer numbers, Example: 5-10
or a combination of these. Example: 3,7,9-10,15
ENTER ANSWER NUMBER OR RANGE (1):11-20
1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):no
ANSWER NUMBERS NOT CORRECTLY SPECIFIED
Enter an answer number, Example: 10
several answer numbers, Example: 3,7,10

```
a range of answer numbers,     Example: 5-10
or a combination of these.     Example: 3,7,9-10,15
ENTER ANSWER NUMBER OR RANGE (1):11
      1 ANSWERS ARE AVAILABLE.  SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):1

L16  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   847651-35-8  REGISTRY
ED   Entered STN:  31 Mar 2005
CN   Guanosine, ethylidenehydrazone (9CI)  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C12 H17 N7 O4
SR   CA
LC   STN Files:   CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.
```




```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> d l6 11-20

L6   ANSWER 11 OF 150  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   924282-00-8  REGISTRY
ED   Entered STN:  02 Mar 2007
CN   Benzoic acid, 4-chloro-, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-
     purin-6-yl]hydrazide  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C19 H20 Cl N7 O5
SR   CA
LC   STN Files:   CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.
```

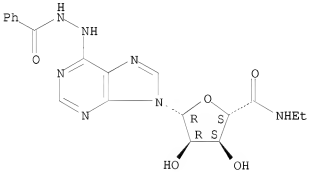


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 12 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 924281-99-2 REGISTRY
ED Entered STN: 02 Mar 2007
CN Benzoic acid, 2-[9-(N-ethyl-β-D-ribofuranuronamidosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H21 N7 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.



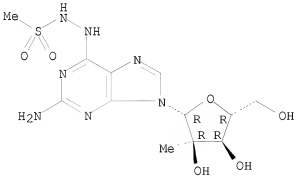
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 13 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 915023-74-4 REGISTRY
ED Entered STN: 07 Dec 2006
CN Guanosine, 2'-C-methyl-, 2-(methylsulfonyl)hydrazone (CA INDEX NAME)

OTHER CA INDEX NAMES:
CN Guanosine, 2'-C-methyl-, (methylsulfonyl)hydrazone (9CI)
FS STEREOSEARCH
MF C12 H19 N7 O6 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

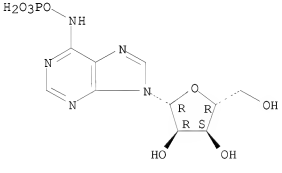


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 14 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 909269-17-6 REGISTRY
ED Entered STN: 02 Oct 2006
CN Adenosine, N-phosphate (5CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C10 H14 N5 O8 P
SR CAS EARLY REGISTRATIONS
LC STN Files: CA, CAPLUS, USPATOLD

Absolute stereochemistry.



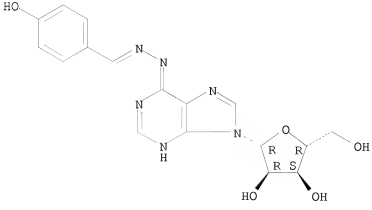
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 15 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-40-9 REGISTRY
ED Entered STN: 12 Apr 2006

CN Inosine, [(4-hydroxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H18 N6 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

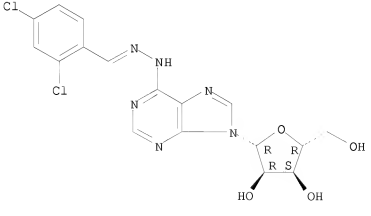


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 16 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-39-6 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, [(2,4-dichlorophenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H16 Cl2 N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

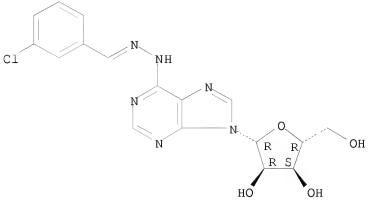


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 17 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-38-5 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, [(3-chlorophenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H17 Cl N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

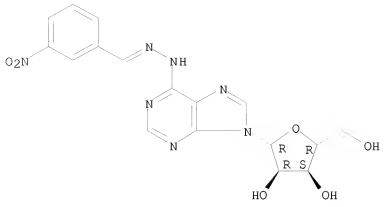


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 18 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-37-4 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, [(3-nitrophenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H17 N7 O6
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

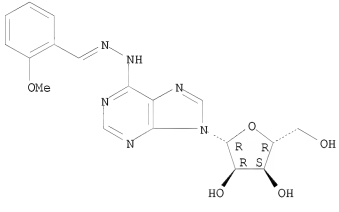


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 19 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-36-3 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, [(2-methoxyphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H20 N6 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.



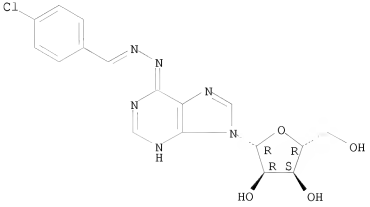
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 20 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-35-2 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, [(4-chlorophenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH

MF C17 H17 Cl N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.



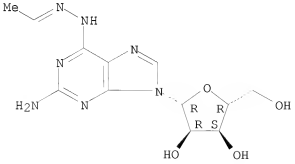
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 21-30
1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):1

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 847651-35-8 REGISTRY
ED Entered STN: 31 Mar 2005
CN Guanosine, ethylidenehydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H17 N7 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



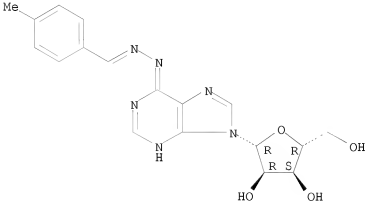
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d l6 21-30

L6 ANSWER 21 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-34-1 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, [(4-methylphenyl)methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H20 N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

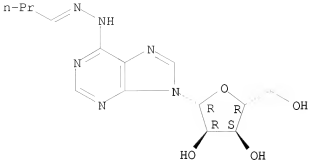


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 22 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-32-9 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, butylidenehydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C14 H20 N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

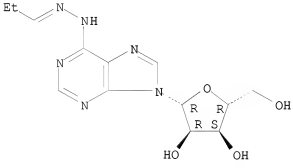


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 23 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 880140-31-8 REGISTRY
ED Entered STN: 12 Apr 2006
CN Inosine, propylidenehydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H18 N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.
Double bond geometry unknown.

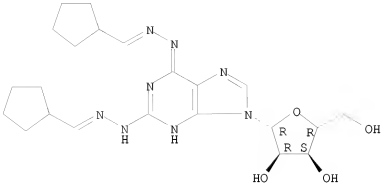


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 24 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 871108-09-7 REGISTRY
ED Entered STN: 04 Jan 2006
CN Xanthosine, bis[(cyclopentylmethylene)hydrazone] (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C22 H32 N8 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.
Double bond geometry unknown.

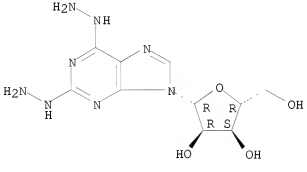


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 25 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 871108-08-6 REGISTRY
ED Entered STN: 04 Jan 2006
CN Xanthosine, dihydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C10 H16 N8 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.



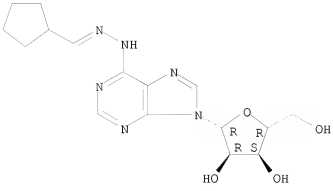
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 26 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 871108-07-5 REGISTRY
ED Entered STN: 04 Jan 2006
CN Inosine, (cyclopentylmethylene)hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H22 N6 O4
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.

Double bond geometry unknown.

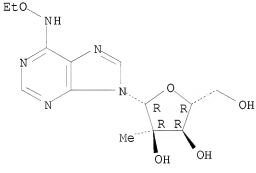


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 27 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 848751-27-9 REGISTRY
ED Entered STN: 19 Apr 2005
CN Inosine, 2'-C-methyl-, O-ethyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H19 N5 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



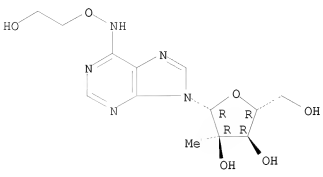
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 28 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 848750-85-6 REGISTRY
ED Entered STN: 19 Apr 2005
CN Inosine, 2'-C-methyl-, O-(2-hydroxyethyl)oxime (9CI) (CA INDEX NAME)
OTHER NAMES:
CN N-(2-Hydroxyethoxy)-2'-C-methyladenosine
FS STEREOSEARCH
MF C13 H19 N5 O6

SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

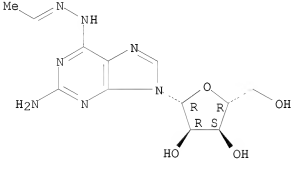


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 29 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 847651-35-8 REGISTRY
ED Entered STN: 31 Mar 2005
CN Guanosine, ethylidenehydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H17 N7 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.



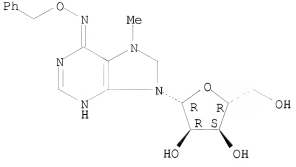
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 30 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 777010-79-4 REGISTRY
ED Entered STN: 08 Nov 2004
CN 7H-Purinium, 7-methyl-6-[(phenylmethoxy)amino]-9-β-D-ribofuranosyl-
(CA INDEX NAME)
FS STEREOSEARCH

MF C18 H22 N5 O5
CI COM
SR CA

Absolute stereochemistry.

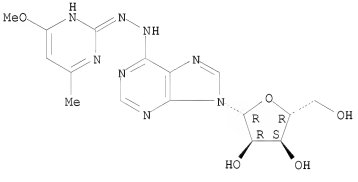


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

=> d l6 31-40

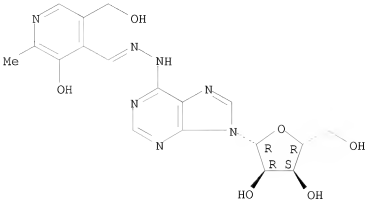
L6 ANSWER 31 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 744961-78-2 REGISTRY
ED Entered STN: 15 Sep 2004
CN Inosine, (4-methoxy-6-methyl-2-pyrimidinyl)hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C16 H20 N8 O5
CI COM
SR CA

Absolute stereochemistry.
Double bond geometry unknown.



L6 ANSWER 32 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 741193-95-3 REGISTRY
ED Entered STN: 07 Sep 2004
CN Inosine, [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N7 O6
CI COM
SR CA

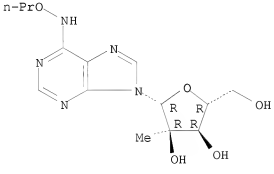
Absolute stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 33 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 677299-18-2 REGISTRY
ED Entered STN: 28 Apr 2004
CN Inosine, 2'-C-methyl-, O-propyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C14 H21 N5 O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



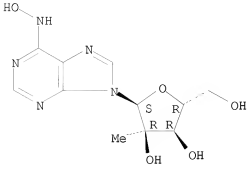
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 34 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 677298-62-3 REGISTRY
ED Entered STN: 28 Apr 2004
CN 6H-Purin-6-one, 1,9-dihydro-9-(2-C-methyl-α-D-ribofuranosyl)-, oxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H15 N5 O5
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

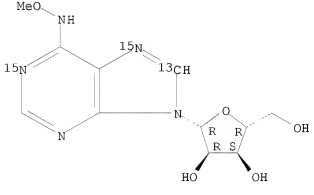


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 35 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 623925-61-1 REGISTRY
ED Entered STN: 05 Dec 2003
CN Inosine-8-13C-1,7-15N2, O-methyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H15 N5 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

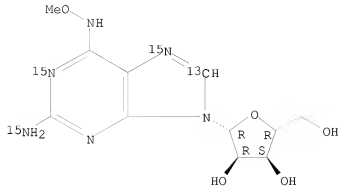
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 36 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 623925-55-3 REGISTRY
ED Entered STN: 05 Dec 2003
CN Guanosine-8-13C-N,1,7-15N3, O-methyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H16 N6 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

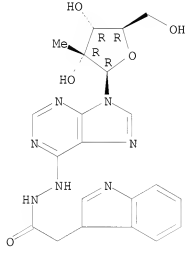


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 37 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 622380-62-5 REGISTRY
ED Entered STN: 01 Dec 2003
CN 3H-Indole-3-acetic acid, 2-[9-(2-C-methyl-β-D-ribofuranosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H23 N7 O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



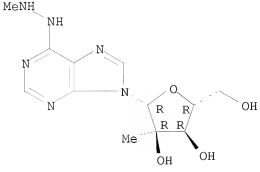
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 38 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 622379-60-6 REGISTRY

ED Entered STN: 01 Dec 2003
CN Inosine, 2'-C-methyl-, methylhydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H18 N6 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

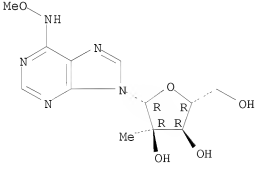


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 39 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-24-7 REGISTRY
ED Entered STN: 13 Aug 2003
CN Inosine, 2'-C-methyl-, O-methyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H17 N5 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.



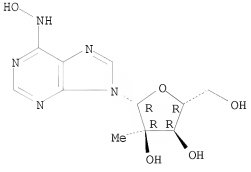
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 40 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-18-9 REGISTRY

ED Entered STN: 13 Aug 2003
CN Inosine, 2'-C-methyl-, oxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H15 N5 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

Absolute stereochemistry.



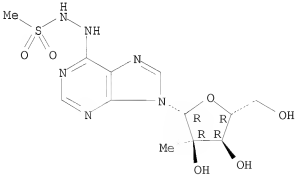
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d l6 41-50

L6 ANSWER 41 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-17-8 REGISTRY
ED Entered STN: 13 Aug 2003
CN Methanesulfonic acid, 2-[9-(2-C-methyl-β-D-ribofuranosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H18 N6 O6 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



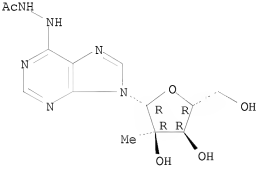
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 42 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-16-7 REGISTRY
ED Entered STN: 13 Aug 2003
CN Acetic acid, 2-[9-(2-C-methyl-β-D-ribofuranosyl)-9H-purin-6-yl]hydrazide (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H18 N6 O5
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

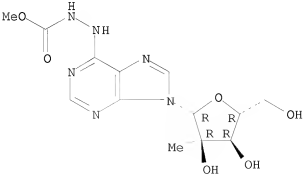


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 43 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-15-6 REGISTRY
ED Entered STN: 13 Aug 2003
CN Hydrazinecarboxylic acid, 2-[9-(2-C-methyl-β-D-ribofuranosyl)-9H-purin-6-yl]-, methyl ester (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H18 N6 O6
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

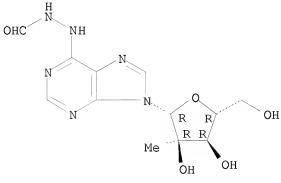


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 44 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-13-4 REGISTRY
ED Entered STN: 13 Aug 2003
CN Inosine, 2'-C-methyl-, formylhydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C12 H16 N6 O5
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

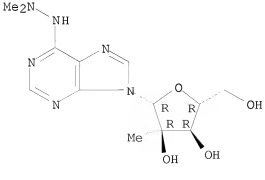


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 45 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-11-2 REGISTRY
ED Entered STN: 13 Aug 2003
CN Inosine, 2'-C-methyl-, 2,2-dimethylhydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H20 N6 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

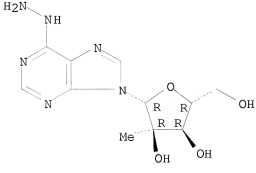


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 46 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 565435-10-1 REGISTRY
ED Entered STN: 13 Aug 2003
CN Inosine, 2'-C-methyl-, hydrazone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H16 N6 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

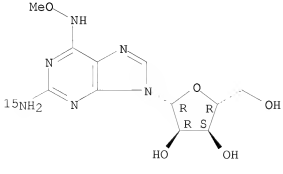


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 47 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 389143-33-3 REGISTRY
ED Entered STN: 04 Feb 2002
CN Guanosine-N-15N, O-methyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H16 N6 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT

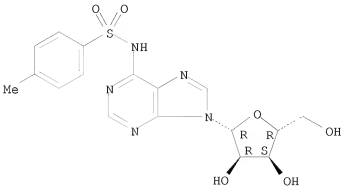
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 48 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 353236-30-3 REGISTRY
ED Entered STN: 28 Aug 2001
CN Adenosine, N-[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C17 H19 N5 O6 S
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

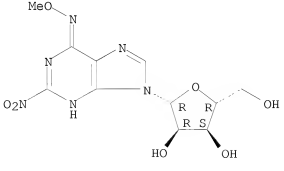


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 49 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 306275-39-8 REGISTRY
ED Entered STN: 04 Dec 2000
CN Inosine, 2-nitro-, O-methyloxime (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H14 N6 O7
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

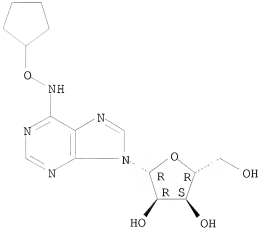


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 50 OF 150 REGISTRY COPYRIGHT 2008 ACS on STN
RN 206991-98-2 REGISTRY
ED Entered STN: 11 Jun 1998
CN Inosine, O-cyclopentyloxime (9CI) (CA INDEX NAME)
OTHER NAMES:
CN N-6-Cyclopentyloxyadenosine
FS STEREOSEARCH
DR 882299-26-5
MF C15 H21 N5 O5
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.



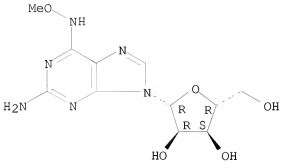
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> s guanosine
L17      43752 GUANOSINE

=> s l17 and O-methyloxime
       2777341 O
         11879 METHYLOXIME
             1 METHYLOXIMES
         11879 METHYLOXIME
                 (METHYLOXIME OR METHYLOXIMES)
         11843 O-METHYLOXIME
                 (O(W)METHYLOXIME)
L18         20 L17 AND O-METHYLOXIME

=> d 20

L18  ANSWER 20 OF 20  REGISTRY  COPYRIGHT 2008 ACS on STN
RN  55652-73-8  REGISTRY
ED  Entered STN:  16 Nov 1984
CN  Guanosine, O-methyloxime (9CI)  (CA INDEX NAME)
FS  STEREOSEARCH
MF  C11 H16 N6 O5
```

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1907 TO DATE)
9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus medline biosis embase

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	130.65	510.06

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.80

FILE 'CAPLUS' ENTERED AT 13:31:09 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 13:31:09 ON 04 MAR 2008

FILE 'BIOSIS' ENTERED AT 13:31:09 ON 04 MAR 2008
Copyright (c) 2008 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 13:31:09 ON 04 MAR 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.

=> s 55652-73-8
L19 9 55652-73-8

=> d ibib abs 1-9

L19 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1363946 CAPLUS
DOCUMENT NUMBER: 148:11441
TITLE: Preparation of nucleobases and nucleosides as antiparasitic agents
INVENTOR(S): Loakes, David; Too, Kathleen
PATENT ASSIGNEE(S): Medical Research Council, UK
SOURCE: PCT Int. Appl., 69pp.
CODEN: PIXXD2

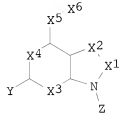
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007135380	A2	20071129	WO 2007-GB1820	20070517

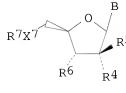
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: GB 2006-10317 A 20060524
OTHER SOURCE(S): MARPAT 148:11441
GI



I



II

AB Nucleobases and nucleosides I were prepared in the manufacture of a medicament to treat and/or prevent a parasitic infection or infestation in a mammalian subject, wherein X1 = N or CH or C=O (X2 = NH) or C=S (X2 = NH) or C-OR1 or C-halogen or C-azide; X2 = N or CR1 or C-halogen or CS(O)nR1 where n = 0-2 or a (C)m linker where m = 1-3 between X2 and X6 or C-X5X6 (in which case X5X6 at C6 (purine numbering) is replaced by H or NHR1 or O or OR1 or S or SR1) X3 = N, CH, C-NO2; X4 = N, CH, C-NO2, C-NR1R2, amidine, guanidinium derivs.; X5 = O, NR1, CR1R2; X6 = OR1, O-acyl, O-S(O)nR1, NR1R2, NH-acyl, N(Acyl)2, NH-OS(O)2R1, NH-S(O)nR1 where n = 0-2, hydrazone, oxime, but if X5 = O; X6 cannot = O, X5X6 is amidine, N-substituted pyridine, substituted guanidine; Y = H, NH2, NR1R2, -O (X3 = NH), OR1, F, Cl, Br, I, CR1R2R3, S(O)nR1 where n = 0-2, azide, X5X6 (in which case X5X6 at C6 (purine numbering) is replaced by H, NHR1, O, OR1, S, SR1); R1-R3 are independently H, alkyl, alkenyl, alkynyl, aryl, aralkyl; Z = H, substituted (alkyl, alkenyl, alkynyl, aralkyl), sugar derivative II in the y-configuration where: B is I; X7 = CH2, O, NR1, S; R4 = H, OH, OR1, halogen, azide, phosphate derivative; R5 = H, F, CH3; R6 = H, OH, OR1, halogen, azide, phosphate derivative; and R7 = H, halogen, R1, derivative of an amino acid, PO3H2, P2O6H3, P3O9H4, methylene derivative of P2O6H3, P3O9H4, masked phosphate, phosphonate derivative Thus, 2-amino-N6-amino-N6-methyl-adenosine was prepared and tested in vitro and in mice as antiprotozoal and antimalarial agents. The invention particularly relates to methods and compns. for the prevention and/or treatment of malaria. Pharmacokinetics of the agent used as well as the patient to be treated. Effective dosages

may range from 1 mg/kg of body weight or less to 25 mg/kg of body weight or more. Generally, effective dosage of the present compds. ranges from less than 1 mg/kg to 25 mg/kg of body weight of the patient, depending upon the compound used, the condition or infection treated and the route of administration. This dosage range generally produces effective blood level concns. of active compound ranging from 0.04 to about 100 μg/cc of blood in the patient.

L19 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:689151 CAPLUS
DOCUMENT NUMBER: 147:268327
TITLE: Anti-malarial activity of N6-modified purine analogues
AUTHOR(S): Too, Kathleen; Brown, Daniel M.; Bongard, Emily; Yardley, Vanessa; Vivas, Livia; Loakes, David
CORPORATE SOURCE: Laboratory of Molecular Biology, Medical Research Council, Cambridge, CB2 2QH, UK
SOURCE: Bioorganic & Medicinal Chemistry (2007), 15(16), 5551-5562
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 147:268327
AB Plasmodium falciparum causes one of the deadliest forms of malaria and resistance to the currently available drugs makes it imperative to develop new, safe and potent drugs. Parasites such as P. falciparum are unable to synthesize purines de novo and to this end often have multiple purine uptake and salvage systems. With this in mind, we have designed and synthesized libraries of purine analogs as potential anti-malarial agents. Herein, we report three compds. with promising activity against the highly chloroquine-resistant VS1 P. falciparum namely: N6-hydroxyadenine (1c), 2-amino-N6-aminoadenosine (2b) and 2-amino-N6-amino-N6-methyladenosine (4b).
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:162026 CAPLUS
DOCUMENT NUMBER: 142:254558
TITLE: Ribonucleoside analogs for the inhibition of viruses
INVENTOR(S): Loakes, David; Brown, Daniel M.; Negishi, Kazuo; Moriyama, Kei; Balzarini, Jan; Cameron, Craig; Arnold, Jamie; Castro, Christian; Korneeva, Victoria; Graci, Jason
PATENT ASSIGNEE(S): UK
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Ser. No. 207,005.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005043268	A1	20050224	US 2004-840238	20040507
US 2003130226	A1	20030710	US 2002-207005	20020730
US 7049303	B2	20060523		
PRIORITY APPLN. INFO.:			GB 2001-26701	A 20011107
			US 2002-207005	A2 20020730

OTHER SOURCE(S): MARPAT 142:254558
AB Disclosed is a pharmaceutical composition comprising a ribonucleoside analog

(Markush included) in admixt. with a physiol. acceptable excipient diluent or carrier. Preparation of analogs is included.

L19 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:376555 CAPLUS
DOCUMENT NUMBER: 138:379194
TITLE: Ribonucleoside analogs for inhibition of RNA viruses
INVENTOR(S): Loakes, David; Brown, Daniel; Balzarini, Jan; Moriyama, Kei; Negishi, Kazuo; Cameron, Craig; Arnold, Jamie; Castro, Christian; Korneeva, Victoria; Graci, Jason
PATENT ASSIGNEE(S): Medical Research Council, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039450	A2	20030515	WO 2002-GB5031	20021107
WO 2003039450	A3	20030821		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003130226	A1	20030710	US 2002-207005	20020730
US 7049303	B2	20060523		
AU 2002337388	A1	20030519	AU 2002-337388	20021107
EP 1441744	A2	20040804	EP 2002-772630	20021107
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005507944	T	20050324	JP 2003-541742	20021107

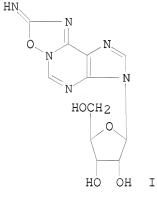
PRIORITY APPLN. INFO.:			
GB 2001-26701	A	20011107
US 2002-207005	A	20020730
WO 2002-GB5031	W	20021107

OTHER SOURCE(S): MARPAT 138:379194
AB The invention discloses pharmaceutical compns. containing ribonucleoside analogs, in admixt. with a physiol. acceptable excipient diluent or carrier. The ribonucleoside analogs of the invention inhibit the replication and/or increase the mutation rate of an RNA virus. Preparation of analogs is described. The compds. may be used to treat viral infections in animals, including humans, and plants.

L19 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:536603 CAPLUS
DOCUMENT NUMBER: 115:136603
TITLE: Synthesis and stability of oligonucleotides containing purine base analogs
AUTHOR(S): Lin, Paul Kong Thoo; Brown, Daniel M.
CORPORATE SOURCE: Lab. Mol. Biol., Univ. Cambridge, Cambridge, CB2 2QH, UK
SOURCE: Nucleosides & Nucleotides (1991), 10(1-3), 675-7
CODEN: NUNUD5; ISSN: 0732-8311
DOCUMENT TYPE: Journal

LANGUAGE: English
AB A conference on the synthesis of the purine nucleoside analogs N6-methoxyadenosine and the 9-deoxyribosyl derivative of the N6-methoxy-2,6-diaminopurine, their introduction into oligomers and the stabilities of duplexes in which these are base-paired with thymidine and cytidine.

L19 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:580284 CAPLUS
DOCUMENT NUMBER: 89:180284
ORIGINAL REFERENCE NO.: 89:28019a,28022a
TITLE: Nucleosides and nucleotides. XIX. Synthesis of 6-thioguanine and 2,6-diaminopurine nucleosides and nucleotides from adenine counterparts via a facile rearrangement in the base portion
AUTHOR(S): Ueda, Toru; Miura, Kazunobu; Kasai, Tsuguo
CORPORATE SOURCE: Fac. Pharm. Sci., Hokkaido Univ., Sapporo, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1978), 26(7), 2122-7
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



HO OH I

AB The action of BrCN with adenosine N1-oxide afforded oxadiazolopurine riboside (I) which was in a pH dependent equilibrium with N6-cyanoadenosine N1-oxide (II). Methylation followed by alkaline treatment of II resulted in a rearrangement to 2-amino-N6-methoxyadenosine (III). Catalytic hydrogenation of III gave 2,6-diaminopurine riboside. Sulfhydrolysis of III gave 6-thioguanosine. By a similar reaction sequence 2'-deoxyadenosine was converted to 2'-deoxy-6-thioguanosine and 2,6-diaminopurine 2'-deoxyriboside, resp. Starting from the N1-oxides of adenosine 5'-phosphate, 2'-deoxyadenosine 5'-phosphate and 9-β-D-arabinofuranosyladenine 5'-phosphate, the corresponding 6-thioguanine nucleotides were prepared 2'-Deoxy-6-thioguanosine and 9-β-D-arabinofuranosyl-6-thioguanine 5'-phosphate at 3-10 mg/kg were highly active against leukemia L 1210, NF sarcoma, and sarcoma 180.

L19 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:16903 CAPLUS
DOCUMENT NUMBER: 86:16903
ORIGINAL REFERENCE NO.: 86:2765a,2768a
TITLE: 6-Thioguanine nucleosides
INVENTOR(S): Ueda, Toru; Miura, Kazunobu; Kasai, Tsugio
PATENT ASSIGNEE(S): Japan

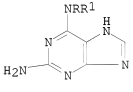
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51054584	A	19760513	JP 1974-126630	19741105
JP 53046840	B	19781216		

PRIORITY APPLN. INFO.: JP 1974-126630 A 19741105

AB 6-Thioguanine nucleosides were prepared by treating 2-amino-N6-methoxyadenine nucleosides which resulted from alkali treatment of N1-alkoxy-N6-cyanoadenine derivs. formed by alkylation of N1-oxido-N6-cyanoadenines, (I), with H2S. N1-Oxidoadenine nucleosides were treated with BrCN to give 2-imino-1,2,4-oxadiazolo[2,3-f]purine derivs., which gave I with weak alkali. The title compds. have antitumor activity (no data) and are convertible to nucleoside antibiotics. Thus, to N1-oxidoadenosine, suspended in MeOH, was added BrCN and the mixture stirred for 1 hr at room temperature to give 92% 2-imino-6-β-D-ribofuranosyl-1,2,4-oxadiazolo[2,3-f]purine-HBr (II). II was treated with MeI for 1.5 hr with stirring to give 75% N1-methoxy-N6-cyanoadenosine (III). III in EtOH and diazabicycloundecene was refluxed for 5 hr to give 2-amino-N-methoxyaminopurine riboside (IV). IV was dissolved in H2O and reacted with pyridine and liquid H2S at 70° for 46 hr to give 60% 6-thioguanosine.

L19 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:504544 CAPLUS
DOCUMENT NUMBER: 85:104544
ORIGINAL REFERENCE NO.: 85:16733a,16736a
TITLE: The synthesis and properties of N6-substituted 2-aminopurine derivatives
AUTHOR(S): Janion, Celina
CORPORATE SOURCE: Inst. Biochem. Biophys., Pol. Acad. Sci., Warsaw, Pol.
SOURCE: Acta Biochimica Polonica (1976), 23(1), 57-68
CODEN: ABPLAF; ISSN: 0001-527X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I, R=H, R1=OMe
II, R=Me, R1=OH
III, R=H, R1=OH

AB The aminopurine derivs. I [60254-48-0], II [60254-49-1], and III [7269-57-0] were synthesized by reacting 6-chloro-2-aminopurine [10310-21-1] with NH2OMe, MeNHOH, and NH2OH, resp. Changes in uv spectra of the 3 derivs. with changing pH indicated that the bases occur in 5 different forms. The riboside [55652-73-8] and 5'-phosphate riboside [60254-50-4] of I were also synthesized and unsuccessful attempts at polymerizing the latter using bacterial polynucleoside phosphorylase were made. A copolymer containing adenosine and the riboside of I was obtained in small yield from ADP and the 5'-phosphate riboside of I. All synthesized purine analogs caused his- → his+ reversion in

Salmonella typhinurium. The most active mutagen was III.

L19 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1975:140417 CAPLUS
DOCUMENT NUMBER: 82:140417
ORIGINAL REFERENCE NO.: 82:22451a,22454a
TITLE: Nucleosides and nucleoties. XI. Chemical conversion of adenosine of guanosine
AUTHOR(S): Miura, Kazunobu; Kasai, Tsuguo; Ueda, Tohru
CORPORATE SOURCE: Fac. Pharm. Sci., Hokkaido Univ., Sapporo, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1975), 23(2), 464-6
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Treatment of adenosine 1-oxide with BrCN gave the hydrobromide salt of 2-imino-6-β-D-ribofuranosyl-(1,2,4-oxadiazolo[2,3-f]purine), which existed as N6-cyanoadenosine 1-oxide on neutralization. Methylation of the latter followed by treatment with alkali gave N6-methoxy-2-aminoadenosine. The solvolysis of the product with liquid H2S gave 6-thioguanosine. Thioguanosine can be oxidatively hydrolyzed to guanosine. Catalytic hydrogenation of the oxadiazolopurine riboside in the presence of HOAc gave 6-ureidopurine riboside.

=> d hist

(FILE 'HOME' ENTERED AT 12:55:09 ON 04 MAR 2008)

FILE 'REGISTRY' ENTERED AT 12:55:17 ON 04 MAR 2008
L1 STRUCTURE UPLOADED
L2 12 S L1 SAM
L3 STRUCTURE UPLOADED
L4 7 S L3 SAM
L5 0 S L4 NOT L2
L6 150 S L3 FULL

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:01:07 ON 04 MAR 2008
L7 180 S L6
L8 176 DUP REM L7 (4 DUPLICATES REMOVED)

FILE 'CAPLUS' ENTERED AT 13:01:47 ON 04 MAR 2008
L9 176 S L8

FILE 'REGISTRY' ENTERED AT 13:07:18 ON 04 MAR 2008
L10 21 S L6 AND METHOXY?
L11 0 S L10 AND 2-AMINO

FILE 'CAPLUS, MEDLINE' ENTERED AT 13:11:32 ON 04 MAR 2008
L12 33 S 19399-25-8
L13 32 DUP REM L12 (1 DUPLICATE REMOVED)

FILE 'USPATFULL' ENTERED AT 13:12:27 ON 04 MAR 2008
L14 0 S 19399-25-8
L15 22 S L6

FILE 'CAPLUS' ENTERED AT 13:15:36 ON 04 MAR 2008

FILE 'USPATFULL' ENTERED AT 13:16:54 ON 04 MAR 2008

FILE 'CAPLUS' ENTERED AT 13:16:55 ON 04 MAR 2008

```
     FILE 'REGISTRY' ENTERED AT 13:18:23 ON 04 MAR 2008
L16             1 S 847651-35-8/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

     FILE 'REGISTRY' ENTERED AT 13:19:14 ON 04 MAR 2008
L17         43752 S GUANOSINE
L18            20 S L17 AND O-METHYLOXIME

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 13:31:09 ON 04 MAR 2008
L19             9 S 55652-73-8

=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    32.23     542.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -7.20      -8.00

STN INTERNATIONAL LOGOFF AT 13:34:17 ON 04 MAR 2008


Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:sssptal617sxw

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS  3  OCT 19  BEILSTEIN updated with new compounds
 NEWS  4  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS  5  NOV 19  WPIX enhanced with XML display format
 NEWS  6  NOV 30  ICSD reloaded with enhancements
 NEWS  7  DEC 04  LINPADOCDB now available on STN
 NEWS  8  DEC 14  BEILSTEIN pricing structure to change
 NEWS  9  DEC 17  USPATOLD added to additional database clusters
 NEWS 10  DEC 17  IMSDRUGCONF removed from database clusters and STN
 NEWS 11  DEC 17  DGENE now includes more than 10 million sequences
 NEWS 12  DEC 17  TOXCENTER enhanced with 2008 MeSH vocabulary in
                  MEDLINE segment
 NEWS 13  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 14  DEC 17  CA/CAplus enhanced with new custom IPC display formats
 NEWS 15  DEC 17  STN Viewer enhanced with full-text patent content
                  from USPATOLD
 NEWS 16  JAN 02  STN pricing information for 2008 now available
 NEWS 17  JAN 16  CAS patent coverage enhanced to include exemplified
                  prophetic substances
 NEWS 18  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
```

```
                custom IPC display formats
NEWS 19  JAN 28  MARPAT searching enhanced
NEWS 20  JAN 28  USGENE now provides USPTO sequence data within 3 days
                 of publication
NEWS 21  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
NEWS 23  FEB 08  STN Express, Version 8.3, now available
NEWS 24  FEB 20  PCI now available as a replacement to DPCI
NEWS 25  FEB 25  IFIREF reloaded with enhancements
NEWS 26  FEB 25  IMSPRODUCT reloaded with enhancements
NEWS 27  FEB 29  WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                 U.S. National Patent Classification


NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
             AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS    STN Operating Hours Plus Help Desk Availability
NEWS LOGIN    Welcome Banner and News Items
NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:29:17 ON 04 MAR 2008

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'CAPLUS' ENTERED AT 14:29:34 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 4 Mar 2008  VOL 148 ISS 10
FILE LAST UPDATED: 3 Mar 2008  (20080303/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html
```

```
=> s 55652-73-8
   REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L2           9 L1

=> d ibib 6-9

L2   ANSWER 6 OF 9  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1978:580284  CAPLUS
DOCUMENT NUMBER:          89:180284
ORIGINAL REFERENCE NO.:   89:28019a,28022a
TITLE:                    Nucleosides and nucleotides. XIX. Synthesis of
                          6-thioguanine and 2,6-diaminopurine nucleosides and
                          nucleotides from adenine counterparts via a facile
                          rearrangement in the base portion
AUTHOR(S):                Ueda, Toru; Miura, Kazunobu; Kasai, Tsuguo
CORPORATE SOURCE:         Fac. Pharm. Sci., Hokkaido Univ., Sapporo, Japan
SOURCE:                   Chemical & Pharmaceutical Bulletin (1978), 26(7),
                          2122-7
                          CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE:            Journal
LANGUAGE:                 English

L2   ANSWER 7 OF 9  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1977:16903  CAPLUS
DOCUMENT NUMBER:          86:16903
ORIGINAL REFERENCE NO.:   86:2765a,2768a
TITLE:                    6-Thioguanine nucleosides
INVENTOR(S):              Ueda, Toru; Miura, Kazunobu; Kasai, Tsugio
PATENT ASSIGNEE(S):       Japan
SOURCE:                   Jpn. Kokai Tokkyo Koho, 4 pp.
                          CODEN: JKXXAF
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
     JP 51054584          A     19760513    JP 1974-126630         19741105
     JP 53046840          B     19781216
PRIORITY APPLN. INFO.:                     JP 1974-126630      A  19741105

L2   ANSWER 8 OF 9  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1976:504544  CAPLUS
DOCUMENT NUMBER:          85:104544
ORIGINAL REFERENCE NO.:   85:16733a,16736a
TITLE:                    The synthesis and properties of N6-substituted
                          2-aminopurine derivatives
AUTHOR(S):                Janion, Celina
CORPORATE SOURCE:         Inst. Biochem. Biophys., Pol. Acad. Sci., Warsaw, Pol.
SOURCE:                   Acta Biochimica Polonica (1976), 23(1), 57-68
```

```
                        CODEN: ABPLAF; ISSN: 0001-527X
DOCUMENT TYPE:          Journal
LANGUAGE:               English

L2   ANSWER 9 OF 9  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:       1975:140417  CAPLUS
DOCUMENT NUMBER:        82:140417
ORIGINAL REFERENCE NO.: 82:22451a,22454a
TITLE:                  Nucleosides and nucleoties.  XI.  Chemical conversion
                        of adenosine of guanosine
AUTHOR(S):              Miura, Kazunobu; Kasai, Tsuguo; Ueda, Tohru
CORPORATE SOURCE:       Fac. Pharm. Sci., Hokkaido Univ., Sapporo, Japan
SOURCE:                 Chemical & Pharmaceutical Bulletin (1975), 23(2),
                        464-6
                        CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE:          Journal
LANGUAGE:               English


=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     7.44       8.59

FILE 'STNGUIDE' ENTERED AT 14:30:33 ON 04 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 29, 2008 (20080229/UP).

=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.12       8.71

STN INTERNATIONAL LOGOFF AT 14:32:00 ON 04 MAR 2008


Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:ssspta1617sxw

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *  Welcome to STN International  * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS  3  OCT 19  BEILSTEIN updated with new compounds
 NEWS  4  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS  5  NOV 19  WPIX enhanced with XML display format
 NEWS  6  NOV 30  ICSD reloaded with enhancements
```

```
NEWS  7  DEC 04  LINPADOCDB now available on STN
NEWS  8  DEC 14  BEILSTEIN pricing structure to change
NEWS  9  DEC 17  USPATOLD added to additional database clusters
NEWS 10  DEC 17  IMSDRUGCONF removed from database clusters and STN
NEWS 11  DEC 17  DGENE now includes more than 10 million sequences
NEWS 12  DEC 17  TOXCENTER enhanced with 2008 MeSH vocabulary in
                 MEDLINE segment
NEWS 13  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 14  DEC 17  CA/CAplus enhanced with new custom IPC display formats
NEWS 15  DEC 17  STN Viewer enhanced with full-text patent content
                 from USPATOLD
NEWS 16  JAN 02  STN pricing information for 2008 now available
NEWS 17  JAN 16  CAS patent coverage enhanced to include exemplified
                 prophetic substances
NEWS 18  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
                 custom IPC display formats
NEWS 19  JAN 28  MARPAT searching enhanced
NEWS 20  JAN 28  USGENE now provides USPTO sequence data within 3 days
                 of publication
NEWS 21  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
NEWS 23  FEB 08  STN Express, Version 8.3, now available
NEWS 24  FEB 20  PCI now available as a replacement to DPCI
NEWS 25  FEB 25  IFIREF reloaded with enhancements
NEWS 26  FEB 25  IMSPRODUCT reloaded with enhancements
NEWS 27  FEB 29  WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                 U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
             AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS    STN Operating Hours Plus Help Desk Availability
NEWS LOGIN    Welcome Banner and News Items
NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:25:44 ON 08 MAR 2008

=> file caplus medline biosis embase
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.21       0.21

FILE 'CAPLUS' ENTERED AT 10:26:10 ON 08 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 10:26:10 ON 08 MAR 2008

FILE 'BIOSIS' ENTERED AT 10:26:10 ON 08 MAR 2008
```

Copyright (c) 2008 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 10:26:10 ON 08 MAR 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.

```
=> file ischem?
'ISCHEM?' IS NOT A VALID FILE NAME
SESSION CONTINUES IN FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE'
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.

=> s ischem?
L1       738854 ISCHEM?

=> s AZT
L2        15168 AZT

=> s l1 and l2
L3           15 L1 AND L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4            14 DUP REM L3 (1 DUPLICATE REMOVED)

=> s ribavirin
L5        28542 RIBAVIRIN

=> s l5 and l1
L6          115 L5 AND L1

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7           102 DUP REM L6 (13 DUPLICATES REMOVED)

=> s l7 andreverse (w) transcriptase
MISSING OPERATOR L7 ANDREVERSE
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l7 and reverse (w) transcriptase
L8            0 L7 AND REVERSE (W) TRANSCRIPTASE

=> s  reverse (w) transcriptase
L9       249696 REVERSE (W) TRANSCRIPTASE

=> s l9 and l1
L10        2520 L9 AND L1

=> s l10 and inhibitor
L11         500 L10 AND INHIBITOR

=> s l11 not HIV
L12         453 L11 NOT HIV

=> s l12 not aids
L13         448 L12 NOT AIDS

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14          362 DUP REM L13 (86 DUPLICATES REMOVED)
```

```
=> s l14 and py<=2001
   2 FILES SEARCHED...
L15         78 L14 AND PY<=2001

=> s l15 and py<=2000
   2 FILES SEARCHED...
L16         56 L15 AND PY<=2000

=> d ibib abs 1-10

L16  ANSWER 1 OF 56  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2001:729492  CAPLUS
DOCUMENT NUMBER:         136:395547
TITLE:                   FR167653, a cytokine-suppressive agent, reduces
                         myocardial ischemia-reperfusion injury in
                         rats
AUTHOR(S):               Hoshida, Shiro; Yamashita, Nobushige; Otsu, Kinya;
                         Hori, Masatsugu
CORPORATE SOURCE:        Department of Internal Medicine and Therapeutics,
                         Osaka University Graduate School of Medicine, Suita,
                         Japan
SOURCE:                  Cytokines, Cellular & Molecular Therapy (2000
                         ), 6(4), 165-170
                         CODEN: CCMTFO; ISSN: 1368-4736
PUBLISHER:               Martin Dunitz Ltd.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   FR167653 inhibits the production of inflammatory cytokines such as
     interleukin-1β (IL-1β) and tumor necrosis factor α
     (TNF-α) in human monocytes in a dose-dependent manner.  We examined
     the effects of FR167653 on the propagation of myocardial infarction
     resulting from coronary occlusion-reperfusion and the time course of
     expression of these cytokines in myocardial tissue in rats.  Myocardial
     infarction was induced by coronary ligation for 20 min followed by 2 h of
     reperfusion.  Although hemodynamic parameters did not differ significantly
     during coronary occlusion-reperfusion, the size of the infarct was
     significantly reduced by i.v. administration of FR167653 before occlusion
     (p < 0.01).  MRNA levels of IL-1β and TNF-α assessed by the
     reverse-transcriptase polymerase chain reaction method
     were significantly increased during coronary occlusion-reperfusion in the
     ischemic myocardium.  Treatment with FR167653, however,
     significantly reduced the increased expression of these cytokines.  These
     results indicate that the expression of inflammatory cytokines increases
     in the ischemic-reperfused myocardium and that the inhibition of
     the increased expression of cytokines by FR167653 effectively reduces
     myocardial ischemia-reperfusion injury.
REFERENCE COUNT:         36    THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16  ANSWER 2 OF 56  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2000:746949  CAPLUS
DOCUMENT NUMBER:         134:261071
TITLE:                   Atorvastatin upregulates type III nitric oxide
                         synthase in thrombocytes, decreases platelet
                         activation, and protects from cerebral
                         ischemia in normocholesterolemic mice
AUTHOR(S):               Laufs, Ulrich; Gertz, Karen; Huang, Paul; Nickenig,
                         Georg; Bohm, Michael; Dirnagl, Ulrich; Endres,
                         Matthias
CORPORATE SOURCE:        Klinik III fur Innere Medizin, Universitat zu Koln,
                         Koln, Germany
```

SOURCE: Stroke (2000), 31(10), 2442-2449
CODEN: SJCCA7; ISSN: 0039-2499
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thrombosis superimposed on atherosclerosis causes approx. two thirds of all brain infarctions. We previously demonstrated that statins protect from cerebral ischemia by upregulation of endothelial type III nitric oxide synthase (eNOS), but the downstream mechanisms have not been determined Therefore, we investigated whether antithrombotic effects contribute to stroke protection by statins. 129/SV wild-type and eNOS knockout mice were treated with atorvastatin for 14 days (0.5, 1, and 10 mg/kg). ENOS mRNA from aortas and platelets was measured by reverse-transcriptase polymerase chain reaction. Platelet factor 4 (PF 4) and β-thromboglobulin (β-TG) in the plasma were quantified by ELISA. Transient cerebral ischemia was induced by filamentous occlusion of the middle cerebral artery followed by reperfusion. Stroke volume after 1-h middle cerebral artery occlusion/23-h reperfusion was significantly reduced by 38% in atorvastatin-treated animals (10 mg/kg) compared with controls. Serum cholesterol levels were not affected by the treatment. ENOS mRNA was significantly upregulated in a dose-dependent manner in aortas and in thrombocytes of statin-treated mice compared with controls. Moreover, indexes of platelet activation in vivo, ie, plasma levels of PF 4 and β-TG, were dose-dependently downregulated in the treatment group. Surprisingly, atorvastatin-treatment did not influence PF 4 and β-TG levels in eNOS knockout mice. The synthetic 3-hydroxy-3-methylglutaryl CoA reductase inhibitor atorvastatin upregulates eNOS in thrombocytes, decreases platelet activation in vivo, and protects from cerebral ischemia in normocholesterolemic mice. Antithrombotic and stroke-protective effects of statins are mediated in part by eNOS upregulation. Our results suggest that statins may provide a novel prophylactic treatment strategy independent of serum cholesterol levels.
REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:450897 CAPLUS
DOCUMENT NUMBER: 133:320084
TITLE: Hypoxia-inducible angiopoietin-2 expression is mimicked by iodonium compounds and occurs in the rat brain and skin in response to systemic hypoxia and tissue ischemia
AUTHOR(S): Mandriota, Stefano J.; Pyke, Charles; Di Sanza, Corinne; Quinodoz, Pierre; Pittet, Brigitte; Pepper, Michael S.
CORPORATE SOURCE: Department of Morphology, University Hospital, Geneva, 1211, Switz.
SOURCE: American Journal of Pathology (2000), 156(6), 2077-2089
CODEN: AJPAA4; ISSN: 0002-9440
PUBLISHER: American Society for Investigative Pathology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Angiopoietins are ligands for the endothelial cell tyrosine kinase receptor Tie-2. Ang-1, the major physiol. activator of Tie-2, promotes blood vessel maturation and stability. Ang-2 counteracts this effect by competitively inhibiting the binding of Ang-1 to Tie-2. Using a combined RNase protection/semiquant. reverse transcriptase -polymerase chain reaction approach, we demonstrate that hypoxia up-regulates Ang-2 mRNA levels by up to 3.3-fold in two human endothelial cell lines. In bovine microvascular endothelial (BME) cells, the

flavoprotein oxidoreductase inhibitor diphenylene iodonium (DPI) and the related compound iodonium di-Ph mimic induction of Ang-2 but not vascular endothelial growth factor (VEGF) by hypoxia; in combination with hypoxia, DPI further increases Ang-2 expression but has no effect on the induction of VEGF by hypoxia. Neither Ang-2 or VEGF was increased by cyanide or rotenone, suggesting that failure in mitochondrial electron transport is not involved in the oxygen-sensing system that controls their expression. In ischemic rat dorsal skin flaps or in the brain of rats maintained for 12 h under conditions of hypoxia, Ang-2 mRNA was up-regulated 7.5- or 17.6- fold, resp. VEGF was concomitantly increased, whereas expression of Ang-1, Tie-2, and the related receptor Tie-1 was unaltered. In situ hybridization localized Ang-2 mRNA to endothelial cells in hypoxic skin. These findings 1) show that up-regulation of Ang-2 by hypoxia occurs widely in endothelial cells in vitro and in vivo; 2) suggest that induction of Ang-2, but not VEGF, by hypoxia in BME cells is controlled by a flavoprotein oxidoreductase that is sensitive to iodonium compds.; and 3) point to Ang-2 and VEGF as independently regulated and selective effectors of hypoxia-induced vascular sprouting.

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:314865 CAPLUS
DOCUMENT NUMBER: 132:344077
TITLE: Method for determining mRNA tissue distribution using restriction endonuclease digestion and PCR amplification for database indexing and drug screening
INVENTOR(S): Hasel, Karl W.; Hilbush, Brian S.
PATENT ASSIGNEE(S): Digital Gene Technologies, Inc., USA
SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026406	A1	20000511	WO 1999-US23655	19991014 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2350168	A1	20000511	CA 1999-2350168	19991014 <--
EP 1127159	A1	20010829	EP 1999-954838	19991014 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002528135	T	20020903	JP 2000-579778	19991014
US 2002012922	A1	20020131	US 2001-775217	20010201
NO 2001002203	A	20010702	NO 2001-2203	20010503 <--
MX 2001PA04550	A	20020918	MX 2001-PA4550	20010504
PRIORITY APPLN. INFO.:			US 1998-186869 A	19981104
			WO 1999-US23655 W	19991014

AB An improved method for the simultaneous sequence-specific identification of mRNAs in a mRNA population allows the visualization of nearly every mRNA expressed by a tissue as a distinct band on a gel whose intensity corresponds roughly to the concentration of the mRNA. In general, the method comprises the formation of cDNA using anchor primers to fix a 3'-endpoint,

producing cloned inserts from the cDNA in a vector containing a bacteriophage-specific promoter for subsequent RNA synthesis, generating linearized fragments of the cloned inserts by restriction endonuclease digestion, preparing cRNA, transcribing cDNA from the cRNA, and performing two sequence-specific PCR amplifications of the cDNA. The products of the second PCR amplification step are resolved by gel electrophoresis to obtain the length and the amount of each. In preferred embodiments, the method comprises comparing the length and at least part of the nucleotide sequence of the PCR products to expected values determined from a database of nucleotide sequences. Such database containing information on mRNA sequences, gene mapping, and cellular distribution is further claimed. The method can identify changes in expression of mRNA associated with the administration of drugs or with physiol. or pathol. conditions. Also provided are vectors, host cells, and primers useful for the practice of the improved method. The primers are preferably labeled and contain phosphorothioate linkages. Two mRNA samples from serum-starved and serum-added human MG63 osteosarcoma cells were analyzed by the method of this invention with results showing significant improvement over the previous method using only one PCR step.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:124735 CAPLUS

DOCUMENT NUMBER: 132:260435

TITLE: Angiotensin-converting enzyme inhibitors downregulate tissue factor synthesis in monocytes

AUTHOR(S): Napoleone, Emanuela; Di Santo, Angelomaria; Camera, Marina; Tremoli, Elena; Lorenzet, Roberto

CORPORATE SOURCE: "Antonio Taticchi" Unit for Atherosclerosis and Thrombosis, Institute of Pharmacological Sciences, University of Milan, Italy

SOURCE: Circulation Research (2000), 86(2), 139-143
CODEN: CIRUAL; ISSN: 0009-7330

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Angiotensin-converting enzyme (ACE) inhibitors reduce the risk of recurrent myocardial infarction in patients with left ventricular dysfunction. Tissue factor (TF), the initiator of blood coagulation, plays a pivotal role in arterial thrombosis that occurs after atherosclerotic plaque fissuring. Because monocytes synthesize TF and contain several components of the renin-angiotensin system, the authors investigated the possibility that ACE inhibitors could modulate monocyte TF expression. Mononuclear leukocytes from healthy volunteers were incubated with endotoxin in the presence or absence of different ACE inhibitors. Captopril reduced TF expression in endotoxin-stimulated mononuclear leukocytes, as measured by a 1-stage clotting assay and ELISA anal., by ≈60%. The effect was dose-dependent and was attributable to ACE inhibition, given that other ACE inhibitors, such as idrapril or fosinopril, and losartan, an antagonist of the angiotensin II AT1 receptor, caused a comparable reduction in TF activity. Reverse transcriptase-polymerase chain reaction indicated that endotoxin-mediated increased levels of TF mRNA were inhibited by ACE inhibitors. Moreover, endotoxin-induced nuclear factor-κB translocation to the promoter region of the gene encoding for TF was markedly inhibited by captopril. The finding that ACE inhibitors and angiotensin II AT1 antagonists can potentially modulate TF expression by mononuclear cells has important biol. and therapeutic implications for the evolution of thrombi. The results suggest that the anti-ischemic effect of these drugs might be explained, at least in part, by their ability to

reduce TF expression in monocytes.
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:15421 CAPLUS
DOCUMENT NUMBER: 132:74506
TITLE: Method for simultaneous identification of differentially expressed mRNAs and measurement of relative concentrations
PATENT ASSIGNEE(S): Scripps Research Institute, USA; Sutcliffe, J. Gregor; Erlander, Mark G.; Hasel, Karl W.
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000646	A1	20000106	WO 1999-US14940	19990630 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6110680	A	20000829	US 1998-108100	19980630 <--
CA 2333254	A1	20000106	CA 1999-2333254	19990630 <--
AU 9948521	A	20000117	AU 1999-48521	19990630 <--
EP 1092045	A1	20010418	EP 1999-932155	19990630 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002529050	T	20020910	JP 2000-556999	19990630
MX 2000PA12758	A	20041015	MX 2000-PA12758	20001219
NO 2000006703	A	20010228	NO 2000-6703	20001229 <--

PRIORITY APPLN. INFO.:

US 1998-108100	A	19980630
US 1993-152482	A3	19931112
US 1995-544577	A2	19951017
US 1998-35190	A2	19980305
WO 1999-US14940	W	19990630

AB An improved method for the simultaneous sequence-specific identification of mRNAs in a mRNA population allows the visualization of nearly every mRNA expressed by a tissue as a distinct band on a gel whose intensity corresponds roughly to the concentration of the mRNA. In general, the method comprises the formation of cDNA using anchor primers to fix a 3'-endpoint, producing cloned inserts from the cDNA in a vector containing a bacteriophage-specific promoter for subsequent RNA synthesis, generating linearized fragments of the cloned inserts, preparing cRNA, transcribing cDNA from the cRNA using a set of 5'-RT primers, and performing PCR using a 3'-PCR primer whose sequence is derived from the vector and a set of 5'-PCR primers that is derived from the 5'-RT primers used for transcription of cDNA from cRNA. The method can identify changes in expression of mRNA associated with the administration of drugs or with physiol. or pathol. conditions.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:15419 CAPLUS
DOCUMENT NUMBER: 132:89213
TITLE: Improved method for simultaneous identification of differentially expressed mRNAs and measurement of relative concentrations
PATENT ASSIGNEE(S): The Scripps Research Institute, USA; Sutcliffe, J. Gregor; Hasel, Karl W.
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2000000645	A1	20000106	WO 1999-US14852	19990630	<--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
US 6096503	A	20000801	US 1998-108099	19980630	<--
CA 2332339	A1	20000106	CA 1999-2332339	19990630	<--
AU 9948497	A	20000117	AU 1999-48497	19990630	<--
AU 784177	B2	20060216			
EP 1092044	A1	20010418	EP 1999-932118	19990630	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002519011	T	20020702	JP 2000-556998	19990630	
US 6633818	B1	20031014	US 2000-630202	20000801	
MX 2000PA12757	A	20040910	MX 2000-PA12757	20001219	
NO 2000006702	A	20010227	NO 2000-6702	20001229	<--

PRIORITY APPLN. INFO.:

US 1998-108099	A	19980630
US 1993-152482	A3	19931112
US 1995-544577	A2	19951017
US 1998-35109	A2	19980305
US 1998-35190	A3	19980305
WO 1999-US14852	W	19990630

AB An improved method for the simultaneous sequence-specific identification of mRNAs in a mRNA population allows the visualization of nearly every mRNA expressed by a tissue as a distinct band on a gel whose intensity corresponds roughly to the concentration of the mRNA. In general, the method comprises the formation of cDNA using anchor primers to fix a 3'-endpoint, producing cloned inserts from the cDNA in a vector containing a bacteriophage-specific promoter for subsequent RNA synthesis, generating linearized fragments of the cloned inserts, preparing cRNA, transcribing cDNA from the cRNA using a set of 5'-RT primers, and performing PCR using a 3'-PCR primer whose sequence is derived from the vector and a set of 5'-PCR primers that is derived from the 5'-RT primers used for transcription of cDNA from cRNA. The method can identify changes in expression of mRNA associated with the administration of drugs or with physiol. or pathol. conditions.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 8 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:574761 CAPLUS
DOCUMENT NUMBER: 131:255896

TITLE: Endogenous plasminogen activator expression after embolic focal cerebral ischemia in mice
AUTHOR(S): Ahn, Moo Young; Zhang, Zheng Gang; Tsang, Wayne; Chopp, Michael
CORPORATE SOURCE: Department of Neurology, Soonchunhyang University Hospital, Seoul, S. Korea
SOURCE: Brain Research (1999), 837(1,2), 169-176
CODEN: BRREAP; ISSN: 0006-8993
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Urokinase-type plasminogen activator (u-PA) and tissue-type plasminogen activator (t-PA) play important roles in fibrinolysis, cell migration, tissue destruction, angiogenesis and tissue remodeling. U-PA and t-PA activity in tissue are tightly regulated by plasminogen activator inhibitor-1 (PAI-1). However, little is known of the activity of endogenous plasminogen activators (PAs) and PAI-1 in ischemic brain. To evaluate whether cerebral ischemic injury induces endogenous PAs and PAI-1, we measured PA activity from brain homogenates, and examined the expression of t-PA mRNA, u-PA mRNA and PAI-1 mRNA from brain homogenates in C57BL/6J mice weighing 29-35 g in which the middle cerebral artery (MCA) was occluded by a fibrin-rich clot. Brain homogenates were prepared for direct casein zymog. from control non-ischemic mice and mice at 2 h, 4 h, and 24 h after MCA occlusion (MCAO). Also, u-PA and t-PA knockout mice at 4 h after MCAO were used as a neg. control for direct casein zymog. Frozen sections for in situ zymog. were obtained from control mice and mice at 2 h, 4 h, and 24 h after clot occlusion. Brain homogenates were prepared for reverse transcriptase-polymerase chain reaction (RT-PCR) to examine t-PA mRNA, u-PA mRNA and PAI-1 mRNA expression from control non-ischemic mice and mice at 2 h, 4 h, and 24 h after MCAO. By direct casein zymog., u-PA activity increased at 4 h, and 24 h after stroke in the ischemic hemisphere compared with the non-ischemic mice. Activity of t-PA in ischemic brain was not significantly different from the control group. As measured by in situ zymog., PA activity, most likely u-PA, was present in the ischemic hemisphere. By RT-PCR, expression of PAI-1 mRNA, but not u-PA mRNA and t-PA mRNA, increased 3-, 15- and 25-folds in the ischemic hemisphere at 2 h, 4 h and 24 h after stroke, resp., compared with control mice. This study demonstrates that PAI-1 mRNA and u-PA activity increase in mouse brain after stroke.
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 9 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:611676 CAPLUS
DOCUMENT NUMBER: 130:23674
TITLE: Ischemic preconditioning and brain tolerance temporal histological and functional outcomes, protein synthesis requirement, and interleukin-1 receptor antagonist and early gene expression
AUTHOR(S): Barone, Frank C.; White, Raymond F.; Spera, Patricia A.; Ellison, Julie; Currie, R. William; Wang, Xinkang; Feuerstein, Giora Z.
CORPORATE SOURCE: Department of Cardiovascular Pharmacology, SmithKline Beecham Pharmaceuticals, King of Prussia, PA, 19406, USA
SOURCE: Stroke (1998), 29(9), 1937-1951
CODEN: SJCCA7; ISSN: 0039-2499
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A short duration of ischemia (ie, ischemic preconditioning [PC]) can provide significant brain protection to subsequent ischemic events (ie, ischemic tolerance [IT]). The present series of studies was conducted to characterize the temporal pattern of a PC paradigm, to systematically evaluate the importance of protein synthesis in PC-induced IT, and to explore candidate gene expression changes associated with IT. Temporary middle cerebral artery occlusion (MCAO) (10 min) was used for PC. Various periods of reperfusion (ie, 2, 6, and 12 h and 1, 2, 7, 14, and 21 days) were allowed after PC and before permanent MCAO (PMCAO) (n=7 to 9 per group) to establish IT compared with non-PC (sham-operated) rats (n=22). Infarct size, forelimb and hindlimb motor function, and cortical perfusion (laser-Doppler flowmetry; n=9 per group) were measured after PMCAO. The effects of the protein synthesis inhibitor cycloheximide administered just before PC (n=13 to 17) or administered long after PC but just before PMCAO (n=7 to 8) on IT were also determined Interleukin-1 receptor antagonist mRNA (reverse transcriptase and polymerase chain reactions [n=20] and Northern anal. [n=50]) and protein expression (immunohistochem. [n=16]) after PC and early response gene expression (Northern anal. [n=16]) after PMCAO in PC animals were determined Hemispheric infarct was significantly (P<0.01) reduced only if PC was performed 1 day (decreased 58.4%), 2 days (decreased 58.1%), or 7 days (decreased 59.4%) before PMCAO. PC significantly (P<0.01) reduced neurol. deficits (similar to redns. in infarct size). Cycloheximide eliminated ischemic PC-induced IT effects on both brain injury and neurol. deficits if administered before PC (P<0.05) but not if administered long after PC but before PMCAO. PC did not produce any significant brain injury, alter cortical blood flow after PMCAO, or produce contralateral cortical neuroprotection. Interleukin-1 receptor antagonist mRNA and protein expression were increased significantly (P<0.01) only during the IT period. PC rats also exhibited a significant (P<0.01) reduction in c-fos and zif268 mRNA expression after PMCAO. PC is a powerful inducer of ischemic brain tolerance as reflected by preservation of brain tissue and motor function. PC induces IT that is dependent on de novo protein synthesis. New protein(s) that occurs at the PC brain site 1 to 7 days after PC contributes to the neuroprotection. Those proteins that are produced after the more severe PMCAO in PC animals apparently do not contribute to IT. The PC-induced IT is also associated with increased expression of the neuroprotective protein interleukin-1 receptor antagonist and a reduced postischemic expression of the early response genes c-fos and zif268.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 10 OF 56 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:761571 CAPLUS

DOCUMENT NUMBER: 128:74118

TITLE: Gene expression of IL-10 in relationship to TNF-α, IL-1β and IL-2 in the rat brain following middle cerebral artery occlusion

AUTHOR(S): Zhai, Qi-Hui; Futrell, Nancy; Chen, Fang-Jie

CORPORATE SOURCE: P.O. Box, 3000 Arlington Ave., Division of Neurology, Medical College of Ohio, Toledo, OH 43614-0008, 10008, USA

SOURCE: Journal of the Neurological Sciences (1997), 152(2), 119-124
CODEN: JNSCAG; ISSN: 0022-510X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To systematically elucidate the gene expression of inflammatory and immune modulators following middle cerebral artery occlusion (MCAO) in the rat,

the authors studied interleukin-10 (IL-10) along with tumor necrosis factor α (TNF-α), interleukin-1 β (IL-1β), and interleukin-2 (IL-2). Gene expression of these cytokines was studied ipsilateral and contralateral to the MCAO, with mRNA expression levels evaluated 2, 4, 6, 8, and 12 h following permanent MCAO by reverse transcriptase polymerase chain reaction (RT-PCR). In the ischemic hemisphere TNF-α and IL-1β mRNA increased at 2 h following MCAO and peaked at 6 h, with IL-10 mRNA detected only at 6 h. Contralaterally, both TNF-α and IL-1β mRNAs were expressed with a similar pattern to that in the ischemic hemisphere, but at lower levels, with no contralateral IL-10 expression. There was no difference in IL-2 gene expression between control and exptl. animals in either hemisphere. Thus, IL-10 and TNF-α and IL-1β gene expression is induced early following MCAO. The temporal profile of these cytokines is similar to that seen in sepsis, where TNF-α induces IL-10; subsequently IL-10 inhibits TNF-α expression. The similarity of the temporal profile of cytokine expression in sepsis and cerebral ischemia suggests that IL-10 should be studied as a potential inhibitor of TNF-α production in ischemic brain tissue.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d hist

(FILE 'HOME' ENTERED AT 10:25:44 ON 08 MAR 2008)

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:26:10 ON 08 MAR 2008

```
L1       738854 S ISCHEM?
L2        15168 S AZT
L3           15 S L1 AND L2
L4           14 DUP REM L3 (1 DUPLICATE REMOVED)
L5        28542 S RIBAVIRIN
L6          115 S L5 AND L1
L7          102 DUP REM L6 (13 DUPLICATES REMOVED)
L8            0 S L7 AND REVERSE (W) TRANSCRIPTASE
L9       249696 S  REVERSE (W) TRANSCRIPTASE
L10        2520 S L9 AND L1
L11         500 S L10 AND INHIBITOR
L12         453 S L11 NOT HIV
L13         448 S L12 NOT AIDS
L14         362 DUP REM L13 (86 DUPLICATES REMOVED)
L15          78 S L14 AND PY<=2001
L16          56 S L15 AND PY<=2000
```

=> s l7 and py<=2000
2 FILES SEARCHED...
L17 7 L7 AND PY<=2000

=> d ibib abs 1-7

L17 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:382835 CAPLUS
DOCUMENT NUMBER: 134:28423
TITLE: Increased β2-microglobulin-free HLA class I heavy chain serum levels in the course of immune responses to viral antigens and to mismatched HLA antigens
AUTHOR(S): Puppo, F.; Brenci, S.; Contini, P.; Bignardi, D.; Hamby, C. V.; Filaci, G.; Ghio, M.; Scudeletti, M.; Picciotto, A.; Indiveri, F.; Ferrone, S.
CORPORATE SOURCE: Department of Internal Medicine, Clinical Immunology

Unit, University of Genoa, Genoa, Italy
SOURCE: Tissue Antigens (2000), 55(4), 333-341
CODEN: TSANA2; ISSN: 0001-2815
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Besides being present in serum in association with β2-μ, HLA class I heavy chains are also present in serum as β2-μ-free moieties. The increase in serum levels of β2-μ-associated HLA class I heavy chains in conditions associated with an activation of the immune system have prompted the authors to measure the serum levels of β2-μ-free HLA class I heavy chains in the course of immune responses to viral antigens and to mismatched histocompatibility antigens. The serum level of β2-μ-free HLA class I heavy chains, like that of β2-μ-associated HLA class I heavy chains was increased in patients affected by advanced HIV-1 infection or by chronic hepatitis C (CHC). In the latter group of patients an association was found between a reduction in the β2-μ-free HLA class I heavy chain serum level and response to therapy with interferon α and ribavirin. Moreover, the β2-μ-free HLA class I heavy chain serum level was increased more than that of β2-μ-associated HLA class I heavy chains during episodes of liver ischemia following liver transplantation and in the course of acute graft rejection and of acute graft-vs.-host-disease (GVHD) after allogeneic bone marrow transplantation (BMT). Thus, the serum levels of β2-μ-free and β2-μ-associated HLA class I heavy chains are independently regulated. Furthermore, β2-μ-free HLA class I heavy chain serum level may be a useful marker to monitor response to therapy in CHC patients and the clin. course of liver and bone marrow grafts.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:624576 CAPLUS
DOCUMENT NUMBER: 113:224576
TITLE: Method of preventing tissue damage due to ischemia associated with diseases by use of purine nucleoside analogs
INVENTOR(S): Gruber, Harry E.
PATENT ASSIGNEE(S): University of California, Berkeley, USA
SOURCE: U.S., 27 pp. Cont.-in-part of U.S. Ser. No. 845,627.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4912092	A	19900327	US 1987-79657	19870729 <--
EP 623348	A1	19941109	EP 1994-107553	19860408 <--
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
CA 1335716	C	19950530	CA 1988-573208	19880727 <--
EP 301900	A2	19890201	EP 1988-307040	19880729 <--
EP 301900	A3	19890920		
EP 301900	B1	19960320		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
WO 8900854	A1	19890209	WO 1988-US2527	19880729 <--
W: AU, BR, DK, FI, JP, NO				
AU 8823150	A	19890301	AU 1988-23150	19880729 <--
BR 8807151	A	19891017	BR 1988-7151	19880729 <--

JP 02500916	T	19900329	JP 1988-506999	19880729	<--
EP 672418	A2	19950920	EP 1995-102166	19880729	<--
EP 672418	A3	19960529			
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
AT 135580	T	19960415	AT 1988-307040	19880729	<--
ES 2087061	T3	19960716	ES 1988-307040	19880729	<--
FI 8901463	A	19890328	FI 1989-1463	19890328	<--
DK 8901488	A	19890529	DK 1989-1488	19890328	<--
DK 175978	B1	20051017			
NO 8901315	A	19890525	NO 1989-1315	19890329	<--
US 5030623	A	19910709	US 1989-366167	19890614	<--
US 5008251	A	19910416	US 1989-401156	19890831	<--
US 5118601	A	19920602	US 1989-401618	19890831	<--
AU 9212855	A	19920604	AU 1992-12855	19920312	<--
AU 9480393	A	19950309	AU 1994-80393	19941212	<--
AU 687112	B2	19980219			

PRIORITY APPLN. INFO.:	US 1984-646785	B2	19840904
	US 1986-845627	A2	19860327
	EP 1986-902696	A3	19860408
	US 1987-79657	A	19870729
	EP 1988-307040	A3	19880729
	WO 1988-US2527	A	19880729

AB Purine nucleoside analogs (AICA riboside, 1-β-D-ribofuranosyl-1,2,4-triazole-3-carboxamide, etc.), which can increase the extracellular concentration of adenosine by enhancing the cellular synthesis and release of adenosine, or can stabilize mast cells and inhibit superoxide free radical production, are used to prevent tissue damage caused by decreased blood flow associated with diseases (coronary artery occlusion, angina pectoris, diabetes, autism, seizure, arthritis, arrhythmia, inflammation, etc.). The purine nucleoside analog can also be used in conjunction with allopurinol, thrombolytic agents (urokinase, coumadin, etc.), inhibitors of nucleoside metabolism (succinylaminoimidazole carboxamide riboside, methotrexate, sulfonamides, etc.), catecholamines, or adenosine deaminase inhibitors (coformycin, dipyridamole, etc.). Thus, 100-500 μM AICA riboside increased adenosine release by lymphoblasts. Infusion of AICA riboside increased adenosine level as well as myocardial blood flow in dogs. A 33% reduction of myocardial infarct size in rats was produced by AICA riboside treatment. In an autistic patient, two months of continuous AICA riboside administration produced less frequent stereotypic movement and evoked reactions to auditory and tactile stimuli as a clear cut improvement. Pretreatment with 10 μM ribavirin for 3-7 days produced a marked attenuation of mouse mast cell degranulation as measured by β-hexosaminidase release.

L17 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1989:450448 CAPLUS
DOCUMENT NUMBER:	111:50448
TITLE:	Increasing extracellular adenosine and stabilizing mast cells using purine nucleosides and analogs
INVENTOR(S):	Gruber, Harry Edward
PATENT ASSIGNEE(S):	University of California, Berkeley, USA
SOURCE:	Eur. Pat. Appl., 29 pp. CODEN: EPXXDW
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	3
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 301900	A2	19890201	EP 1988-307040	19880729	<--

EP 301900	A3	19890920			
EP 301900	B1	19960320			
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
US 4912092	A	19900327	US 1987-79657	19870729	<--
EP 672418	A2	19950920	EP 1995-102166	19880729	<--
EP 672418	A3	19960529			
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					

PRIORITY APPLN. INFO.:	US 1987-79657	A	19870729
	US 1984-646785	B2	19840904
	US 1986-845627	A2	19860327
	EP 1988-307040	A3	19880729

AB Methods for increasing extracellular concns. of adenosine (I) for the prophylactic or affirmative treatment of diseases of the immune, nervous, cardiac, and vascular systems involve administering to a patient purine nucleoside and purine nucleoside-related analogs which increase extracellular I concns. Methods for stabilizing mast cells by the suppression of mast cell activation using such compds., are also given. A screening method is given for purine nucleoside compds. or analogs, concerning their ability to enhance the cellular synthesis and release of I. Infusion of 100 mM AICA riboside prior and after coronary occlusion in dogs increased the blood flow in the ischemic myocardium and increased the blood I levels.

L17 ANSWER 4 OF 7 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

ACCESSION NUMBER:	2001:136172 BIOSIS
DOCUMENT NUMBER:	PREV200100136172
TITLE:	Interferon associated ischemic retinopathy with complete resolution after discontinuation of treatment.
AUTHOR(S):	Bontemps, Ernst [Reprint author]; Sorra, Toomas M. [Reprint author]
CORPORATE SOURCE:	Long Island College Hospital, Brooklyn, NY, USA
SOURCE:	American Journal of Gastroenterology, (September, 2000) Vol. 95, No. 9, pp. 2565. print. Meeting Info.: 65th Annual Scientific Meeting of the American College of Gastroenterology. New York, New York, UK. October 13-18, 2000. American College of Gastroenterology. CODEN: AJGAAR. ISSN: 0002-9270.
DOCUMENT TYPE:	Conference; (Meeting) Conference; Abstract; (Meeting Abstract)
LANGUAGE:	English
ENTRY DATE:	Entered STN: 14 Mar 2001 Last Updated on STN: 15 Feb 2002

L17 ANSWER 5 OF 7 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER:	2000012704 EMBASE
TITLE:	Cryoglobulinemia.
AUTHOR:	Dispenzieri A.; Gorevic P.D.
CORPORATE SOURCE:	Dr. A. Dispenzieri, Division of Hematology/Internal Med., Mayo Clinic, 200 First Street SW, Rochester, MN 55905, United States
SOURCE:	Hematology/Oncology Clinics of North America, (1999) Vol. 13, No. 6, pp. 1315-1349. Refs: 239 ISSN: 0889-8588 CODEN: HCNAEQ
COUNTRY:	United States
DOCUMENT TYPE:	Journal; General Review; (Review)
FILE SEGMENT:	025 Hematology 026 Immunology, Serology and Transplantation 037 Drug Literature Index 038 Adverse Reactions Titles

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jan 2000
Last Updated on STN: 13 Jan 2000

AB Cryoglobulinemia may be found in a spectrum of disorders spanning clearcut-B-cell neoplastic states, in which cryoprecipitation manifests as ischemic or occlusive vasculopathy, to a variety of immune complex diseases, in which vasculitis or glomerulonephritis may occur. Symptomatic cryoglobulinemia is many diseases, driven by and driving antibody-antigen responses, hepatic dysfunction, lymphoproliferation, and immune complexes. Distinguishing features that cause only some cryoglobulins to be symptomatic, elucidating the pathogenic mechanisms of HCV in cryoglobulin formation, and devising better therapies and more systematic evaluation of existing therapies are among the challenges for the future. Prognostication and classification will continue to rely on Brouet's classification (types I, II, and III), but additional features will probably include the presence or absence of HCV, HCV factors (genotype, titer), coexisting infections, B-cell clone burden, host factors, and immune system interactions (B- and T-cell idiotype networks, cytokines). Although antiviral therapy is a reasonable option for HCV-associated cryoglobulinemia, not all patients are HCV- positive, and only 60% to 80% of HCV-positive patients respond to IFN. In addition, not all patients tolerate IFN, and in those who do, the response is often short-lived once the treatment is discontinued. Only creative strategies, systematically studied, will provide long-awaited solutions.

L17 ANSWER 6 OF 7 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1999200900 EMBASE
TITLE: Systemic necrotizing vasculitis in a patient co-infected with human immunodeficiency virus and hepatitis C.
AUTHOR: Tikhomirov V.; Trock D.; Sieber S.; Nazer K.
CORPORATE SOURCE: Dr. V. Tikhomirov, Department of Internal Medicine, Danbury Hospital, 24 Hospital Ave., Danbury, CT 06810, United States
SOURCE: Journal of Clinical Rheumatology, (Jun 1999) Vol. 5, No. 3, pp. 157-164.
Refs: 66
ISSN: 1076-1608 CODEN: JCRHFM
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 031 Arthritis and Rheumatism
037 Drug Literature Index
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 1 Jul 1999
Last Updated on STN: 1 Jul 1999

AB Systemic vasculitis is a rare but devastating problem in patients with human immunodeficiency virus (HIV). The coinfection with hepatitis C virus (HCV) further complicates the clinical management. We report a 46-year-old woman coinfected with HCV and HIV with a CD4 count of 950/mm(3) who presented with a life-threatening vasculitis of the lungs, kidneys, and skin and who initially responded after use of corticosteroids and then 2 monthly pulses of i.v. cyclophosphamide. Her condition deteriorated when she was switched to azathioprine. Ultimately, the patient died of neutropenic sepsis. On the basis of our experience and an analysis of the literature, we suggest that monthly pulsed i.v. cyclophosphamide and steroids might be used as an induction therapy,

followed by antiviral treatment for patients with HIV, HCV, and a life-threatening ischemic vasculitis if the CD4 count is >400/mm(3). For patients in this complex condition who are receiving immunosuppressants close surveillance for signs of secondary infection, and prophylactic trimethoprim/sulfamethoxazole, are advised. The use of interferon alpha, ribavirin, i.v. immunoglobulin, and plasmapheresis are alternatives for patients with milder vasculitis.

L17 ANSWER 7 OF 7 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 1995345631 EMBASE
TITLE: Hepatology.
AUTHOR: McNair A.N.B.; Tibbs C.J.; Williams R.
CORPORATE SOURCE: Dr. A.N.B. McNair, Institute of Liver Studies, King's College Hospital, London SE5 9PJ, United Kingdom
SOURCE: British Medical Journal, (18 Nov 1995) Vol. 311, No. 7016, pp. 1351-1355.
Refs: 48
ISSN: 0959-8146 CODEN: BMJOAE
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review; (Review)
FILE SEGMENT: 037 Drug Literature Index
038 Adverse Reactions Titles
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
048 Gastroenterology
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 1995
Last Updated on STN: 5 Dec 1995

=> d hist

(FILE 'HOME' ENTERED AT 10:25:44 ON 08 MAR 2008)

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:26:10 ON 08 MAR 2008
L1 738854 S ISCHEM?
L2 15168 S AZT
L3 15 S L1 AND L2
L4 14 DUP REM L3 (1 DUPLICATE REMOVED)
L5 28542 S RIBAVIRIN
L6 115 S L5 AND L1
L7 102 DUP REM L6 (13 DUPLICATES REMOVED)
L8 0 S L7 AND REVERSE (W) TRANSCRIPTASE
L9 249696 S REVERSE (W) TRANSCRIPTASE
L10 2520 S L9 AND L1
L11 500 S L10 AND INHIBITOR
L12 453 S L11 NOT HIV
L13 448 S L12 NOT AIDS
L14 362 DUP REM L13 (86 DUPLICATES REMOVED)
L15 78 S L14 AND PY<=2001
L16 56 S L15 AND PY<=2000
L17 7 S L7 AND PY<=2000

=> s l4 and py<=2001
2 FILES SEARCHED...
L18 6 L4 AND PY<=2001

=> d ibib abs 1-6

L18 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:1013125 CAPLUS

DOCUMENT NUMBER: 140:65078
TITLE: Reduced side-effect hemoglobin compositions
INVENTOR(S): Looker, Douglas L.; Apostol, Izydor Z.; Brucker, Eric A.; Doyle, Michael P.; Foster, David L.; Glascock, Christopher B.; Hartman, James C.; Lee, Geoffrey F.; Lemon, Douglas D.; Moore, Edwin G.; Richards, Jane P.; Schick, Michael R.; Trimble, Stephen P.; Pereira, David; Hai, Ton-That; Burhop, Kenneth E.
PATENT ASSIGNEE(S): Baxter International Inc., USA; Baxter Healthcare S.A.
SOURCE: U.S., 62 pp., Cont.-in-part of U.S. 6,455,676. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6670323	B1	20031230	US 2000-709914	20001110
WO 9850430	A2	19981112	WO 1998-US8861	19980501 <--
WO 9850430	A3	19990401		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6455676	B1	20020924	US 2000-403208	20000425
US 2004259769	A1	20041223	US 2003-747580	20031229
US 7211560	B2	20070501		

PRIORITY APPLN. INFO.:		
WO 1998-US8861	W	19980501
US 1999-165289P	P	19991112
US 2000-403208	A2	20000425
US 1997-45364P	P	19970502
US 1997-57986P	P	19970905
US 2000-709914	A1	20001110

AB The invention relates to novel Hb compns., particularly novel recombinant mutant Hb compns., which eliminate or substantially reduce 1) the creation of heart lesions, 2) gastrointestinal discomfort, 3) pressor effects, and 4) endotoxin hypersensitivity associated with the administration of extracellular Hb compns. in various therapeutic applications. Applications described include treatments for anemia, head injury, hemorrhage or hypovolemia, ischemia, cachexia, sickle cell crisis and stroke; enhancing cancer treatments; stimulating hematopoiesis; improving repair of phys. damaged tissues; alleviating cardiogenic shock; and shock resuscitation.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:360039 CAPLUS
DOCUMENT NUMBER: 134:371751
TITLE: Reduced side-effect hemoglobin compositions
INVENTOR(S): Looker, Douglas L.; Apostol, Izydor Z.; Brucker, Eric A.; Doyle, Michael P.; Foster, David L.; Glascock, Christopher B.; Hartman, James C.; Lee, Geoffrey F.; Lemon, Douglas D.; Moore, Edwin G.; Richards, Jane P.; Schick, Michael R.; Trimble, Stephen P.; Pereira, David; Hai, Ton-That; Burhop, Kenneth E.
PATENT ASSIGNEE(S): Baxter Biotech Technology S.A.R.L., Switz.

SOURCE: PCT Int. Appl., 146 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034648	A1	20010517	WO 2000-US30857	20001110 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2391226	A1	20010517	CA 2000-2391226	20001110 <--
EP 1233986	A1	20020828	EP 2000-980318	20001110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003515533	T	20030507	JP 2001-537359	20001110
AU 784195	B2	20060216	AU 2001-17597	20001110
NO 2002002229	A	20020711	NO 2002-2229	20020510
ZA 2002003817	A	20030228	ZA 2002-3817	20020514
PRIORITY APPLN. INFO.:			US 1999-165289P P	19991112
			WO 2000-US30857 W	20001110

AB The invention relates to novel Hb compns., particularly novel recombinant mutant Hb compns., which eliminate or substantially reduce 1) the creation of heart lesions, 2) gastrointestinal discomfort, 3) pressor effects, and 4) endotoxin hypersensitivity associated with the administration of extracellular Hb compns. in various therapeutic applications. Applications described include treatments for anemia, head injury, hemorrhage or hypovolemia, ischemia, cachexia, sickle cell crisis and stroke; enhancing cancer treatments; stimulating hematopoiesis; improving repair of phys. damaged tissues; alleviating cardiogenic shock; and shock resuscitation.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:861649 CAPLUS
DOCUMENT NUMBER: 134:29707
TITLE: Preparation of N-L-cysteinylcysteamine derivatives as novel antioxidants
INVENTOR(S): Oiry, Joel; Puy, Jean-Yves; Imbach, Jean-Louis; Clayette, Pascal; Fretier, Philippe
PATENT ASSIGNEE(S): Centre National de la Recherche Scientifique (CNRS), Fr.; Commissariat a l'Energie Atomique
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000073266	A1	20001207	WO 2000-FR1447	20000526 <--
W: CA, JP, US				

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

FR 2794122	A1	20001201	FR 1999-6708	19990527 <--
FR 2794122	B1	20010907		
CA 2375348	A1	20001207	CA 2000-2375348	20000526 <--
EP 1183237	A1	20020306	EP 2000-936951	20000526
EP 1183237	B1	20040128		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP 2003500472	T	20030107	JP 2000-621333	20000526
AT 258545	T	20040215	AT 2000-936951	20000526
US 6989372	B1	20060124	US 2001-980291	20011127
US 2004158092	A1	20040812	US 2003-738267	20031216
US 6979747	B2	20051227		

PRIORITY APPLN. INFO.:	FR 1999-6708	A	19990527
	WO 2000-FR1447	W	20000526
	US 2001-980291	A3	20011127

OTHER SOURCE(S): MARPAT 134:29707

AB Compds. RCO-L-Cys(R'')-NHCH2CH2SC(O)R' [R, R' = C1-7alkyl or an aryl group which may be substituted by halogen, alkyl, or OH; R'' = H, alkanoyl or aroyl or the disulfide derivs. or corresponding thiazolidine forms] were prepared for use as antioxidant agents, in particular for preparing medicines designed to increase the intracellular and/or extracellular level of glutathione (GSH). Thus, N-(N-acetyl-L-cysteinyl)-S-acetylcysteamine was prepared via coupling of N-acetyl-S-trityl-L-cysteine with S-acetylcysteamine hydrochloride and deprotection (AgNO3/pyridine in MeOH, then HCl or H2S) and evaluated as an antiviral agents.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1998:459235 CAPLUS
DOCUMENT NUMBER:	129:257028
TITLE:	Clinical study of 99mTc-ECD brain SPECT with acetazolamide loading test and its application in cerebral vascular disease
AUTHOR(S):	Zhou, Qian; Li, Fang; Zhao, Yongbo
CORPORATE SOURCE:	Department of Nuclear Medicine, Peking Union Medical University Hospital, Beijing, 100730, Peop. Rep. China
SOURCE:	Zhonghua Heyixue Zazhi (1998), 18(1), 7-10 CODEN: CITCDE; ISSN: 0253-9780
PUBLISHER:	Jiangsusheng Yuanzi Yixue Yanjiuso
DOCUMENT TYPE:	Journal
LANGUAGE:	Chinese

AB To establish a routine procedure and to obtain the reference values and diagnostic evaluation parameters, the AZT test, i.e., the brain 99mTc-ECD cerebral blood flow (CBF) and SPECT studies before and 20 min. after i.v. of 1 g acetazolamide , were performed in 6 normal subjects, 30 patients with TIA (transient ischemia attack), 2 patients with RIND (reversible ischemic neural defect), and 11 patients with small infarctions. All the cases had CT, and some of them had also MRI, TCD and DSA (digital subtraction angiog.) data; and 7 patients had follow-up SPECT after therapy. The visual image anal. results were divided into 3 types, viz., the A type, poor reaction, lesions with low CBF were appeared or enlarged (A2) after AZT administration; the B type, good reaction, the low CBF lesions disappeared or reduced after AZT test; and C type, with no response. The semiquant. anal.: calculate the carotid and cerebral hemisphere peak time, and also the percentage of hemisphere CBF of the total global CBF derived from the time- activity of curve of RNCA (radionuclide cerebral angiog.); and measurement of the increment and the (UR) uptake ratio of the affected/unaffected areas and hemispheres before and after ACZ test. In

the normal conditions: there were no difference between the peak times, percentage of hemisphere CBF of both sides; and the mean percentage increase after ACZ was 25.07±0.09%, UR of all region was > 0.90. 42% Of the TIA patients had occlusive cerebrovascular disease as detected by RNCA, and the results correlated well with that of TCD and DSA. The detection rate of TIA was increased from 59.37% to 87.15%; and small infarctions from 73% to 90% after ADZ. The vascular reserve was poor in type A and good in type B patients, and so were the therapeutic response. Hypoperfusion in the thalamus and/or cerebellum in patients with small infarctions were recovered to normal perfusion after ACZ. The results suggest that ACZ test is a safe, reliable interventional cerebral perfusion SPECT imaging modality.

L18 ANSWER 5 OF 6 MEDLINE on STN
ACCESSION NUMBER: 92262770 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1374921
TITLE: Rapid development of giant aneurysm at the base of the brain in an 8-year-old boy with perinatal HIV infection.
AUTHOR: Lang C; Jacobi G; Kreuz W; Hacker H; Herrmann G; Keul H G; Thomas E
CORPORATE SOURCE: Neurologisches Institut, Universitat Frankfurt am Main.
SOURCE: Acta histochemica. Supplementband, (1992) Vol. 42, pp. 83-90.
Journal code: 0061372. ISSN: 0567-7556.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 199206
ENTRY DATE: Entered STN: 26 Jun 1992
Last Updated on STN: 3 Mar 2000
Entered Medline: 12 Jun 1992

AB An 8-year-old boy with perinatal HIV infection developed a large fusiform aneurysm in the circle of Willis two years prior to death which was confirmed by radiological studies. The postmortem examinations revealed a predominantly intimal, proliferative lesion, and partial destruction of the internal elastic lamina in the involved arteries. Within the intima hyperplasia of fibroblasts and smooth muscle cells was observed. No inflammatory alterations, no granulomas and no multinucleated giant cells could be noted in the vascular walls and in the cerebral parenchyma. A small ischemic infarct was present in the left thalamus. Cerebellum, brainstem and medulla showed multiple areas of progressive multifocal leukoencephalopathy (PML). Immunohistochemistry with anti-gp41, a monoclonal antibody against HIV envelope did not exhibit any positive results. These findings implicate that the vascular lesion might be attributed to primary infection of the brain by HIV which led to a defect of elastic lamina and consecutive intimal hyperplasia. A second hypothesis could be based on the effect of extremely high dose AZT therapy avoiding inflammatory reaction after HIV infection.

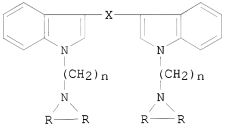
L18 ANSWER 6 OF 6 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 1995:396178 BIOSIS
DOCUMENT NUMBER: PREV199598410478
TITLE: Impairment of cerebral vasoreactivity (CVR) in multi-infarct dementia (MID), dementia of Alzheimer's type (DAT), and dementia in Parkinson's.
AUTHOR(S): Rundek, Tanja [Reprint author]; Demarin, Vida; Savin, Gordan
CORPORATE SOURCE: Dep. Neurol., Univ. Hosp. Sestre milosrdnice, Zagreb, Croatia
SOURCE: Periodicum Biologorum, (1995) Vol. 97, No. 2, pp.

99-104.
CODEN: PDBIAD. ISSN: 0031-5362.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Sep 1995
Last Updated on STN: 13 Sep 1995

AB Background and purpose: The impaired cerebral vasoreactivity (CVR) occurs in severe dementia and may significantly reduce survival. In order to analyze the range of CVR in dementia we analyzed 30 patients with multi-infarct dementia (MID), 45 with dementia of Alzheimer's type (DAT), and 20 patients with dementia in Parkinson's disease (DPD). Methods: All patients fulfilled the criteria of DSM-III-R, NINDS-AIREN and NINCDS-ADRDA classification for dementia. Folstein-Mini-Mental Scale (FMMS) was used as a measure of the cognitive impairment and Hachinski ischemic score to distinguish vascular dementia. In all the patients we performed brain CT, Color Doppler Flow Imaging of the carotid and vertebral arteries and a battery of psychological rating scales and tests. Cerebral vasoreactivity was assessed by measuring the changes of blood flow velocities with Transcranial Doppler after administration of acetazolamide (AZT). Results: The results showed the impairment of blood flow velocities in the Willis' circle in all MID patients before AZT stimulation, in 49% with DAT, and 20% with DPD. After the AZT stimulation the reduced CVR was observed in MID patients with the moderate and severe mental deterioration, and in those DAT and DPD patients who had the impaired TCD finding before the AZT test (p lt 0.01). Conclusion: Testing of the cerebral vasoreactivity can clarify the hemodynamic origin of dementia, indicating the basic different pathogeneity among various types of dementia and, therefore, predict the progression and the prognosis of disease.

```
=> d hist

     (FILE 'HOME' ENTERED AT 10:25:44 ON 08 MAR 2008)

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:26:10 ON 08 MAR 2008
L1       738854 S ISCHEM?
L2        15168 S AZT
L3           15 S L1 AND L2
L4           14 DUP REM L3 (1 DUPLICATE REMOVED)
L5        28542 S RIBAVIRIN
L6          115 S L5 AND L1
L7          102 DUP REM L6 (13 DUPLICATES REMOVED)
L8            0 S L7 AND REVERSE (W) TRANSCRIPTASE
L9       249696 S  REVERSE (W) TRANSCRIPTASE
L10        2520 S L9 AND L1
L11         500 S L10 AND INHIBITOR
L12         453 S L11 NOT HIV
L13         448 S L12 NOT AIDS
L14         362 DUP REM L13 (86 DUPLICATES REMOVED)
L15          78 S L14 AND PY<=2001
L16          56 S L15 AND PY<=2000
L17           7 S L7 AND PY<=2000
L18           6 S L4 AND PY<=2001

=> dup rem l11
PROCESSING COMPLETED FOR L11
L19         411 DUP REM L11 (89 DUPLICATES REMOVED)

=> s l19 and py<=2001
   2 FILES SEARCHED...
L20          84 L19 AND PY<=2001
```

```
=> s l20 not l16
L21         28 L20 NOT L16

=> d ibib abs 1-10

L21  ANSWER 1 OF 28  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2007:339553  CAPLUS
DOCUMENT NUMBER:         146:500884
TITLE:                   Process for producing indolyl-methane compounds and
                         pharmaceutical compositions for inhibiting
                         transcriptase enzyme
INVENTOR(S):             Hegyes, Peter; Toeroecsik, Mihaly
PATENT ASSIGNEE(S):      Hung.
SOURCE:                  Hung. Pat. Appl., 20pp.
                         CODEN: HUXXCV
DOCUMENT TYPE:           Patent
LANGUAGE:                Hungarian
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ----------          ----   --------    -------------------    --------
     HU 9801781           A2    20000528    HU 1998-1781           19980803 <--
     HU 9801781           A3    20000828
PRIORITY APPLN. INFO.:                      HU 1998-1781           19980803
OTHER SOURCE(S):         MARPAT 146:500884
GI
```



I

AB The subject of the invention is a pharmaceutical composition to treat the symptoms of ischemic diseases, or symptoms as a result of brain hemorrhage, epilepsy or migraine. As its active ingredient, the composition contains indolyl-methane derivs. I were prepared, wherein R is H, substituted Ph, substituted phenoxy, substituted benzoyl; NRR group forms heterocycle; X is O, N, methylene; n is 1-2. Alternatively, the composition may contain the pharmaceutically applicable salt of the compound Thus, 1,1'-bis-piperidino-methyl-3,3'-diindolyl-methane was prepared by condensation of diindolylmethane with formaldehyde and piperidine in 76% yield. Title compds. were prepared and tested against HIV-1 and HIV-2 as anti-AIDS antiviral agents.

```
L21  ANSWER 2 OF 28  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2001:713295  CAPLUS
DOCUMENT NUMBER:         135:272688
TITLE:                   Preparation of propenecarboxylic acid amidoxime
                         derivatives, a process for the preparation thereof,
                         and pharmaceutical compositions effective against
                         diseases due to inhibition of poly(adenosine
                         diphosphate ribose)-polymerase or against oxygen
```

and/or energy deficits

INVENTOR(S): Literati, Nagy Peter; Suemegi, Balazs; Takacs, Kalman

PATENT ASSIGNEE(S): N-Gene Kutato Kft., Hung.; Literati Nagy, Peter

SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070674	A1	20010927	WO 2001-HU29	20010313 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
HU 2001000987	A2	20030828	HU 2001-987	20010307
HU 2001000987	A3	20040301		
CA 2404128	A1	20010927	CA 2001-2404128	20010313 <--
BR 2001009430	A	20021210	BR 2001-9430	20010313
EP 1268407	A1	20030102	EP 2001-919683	20010313
EP 1268407	B1	20040506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003528073	T	20030924	JP 2001-568886	20010313
AT 265998	T	20040515	AT 2001-919683	20010313
NZ 521792	A	20040625	NZ 2001-521792	20010313
PT 1268407	T	20041130	PT 2001-919683	20010313
ES 2220753	T3	20041216	ES 2001-919683	20010313
AU 783393	B2	20051020	AU 2001-46744	20010313
RU 2264387	C2	20051120	RU 2002-127802	20010313
NO 2002004341	A	20021120	NO 2002-4341	20020911
ZA 2002007523	A	20030919	ZA 2002-7523	20020919
MX 2002PA09216	A	20031211	MX 2002-PA9216	20020920
US 2003153559	A1	20030814	US 2002-239159	20021120
US 6887872	B2	20050503		
HK 1053826	A1	20050114	HK 2003-104718	20030702
US 2005165019	A1	20050728	US 2005-84231	20050321
US 7151175	B2	20061219		

PRIORITY APPLN. INFO.:

HU 2000-1178	A	20000320
HU 2001-987	A	20010307
WO 2001-HU29	W	20010313
US 2002-239159	A3	20021120

OTHER SOURCE(S): CASREACT 135:272688; MARPAT 135:272688

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention refers to novel propenecarboxylic acid amidoxime derivs. RR'C:CHC(:NOR1)NR2CH2CHR3CH2NR4R5, N-oxides and/or geometrical isomers and/or optical isomers and/or pharmaceutically suitable acid addition salts and/or quaternary derivs. thereof. The novel compds. are suitable for the treatment of a state connected with oxygen deficit and/or energy deficit, or a disease based on poly(ADP ribose)-polymerase (PARP) inhibition, especially

an autoimmune or neurodegenerative disease, and/or a viral disease, and/or a disease caused by a toxic effect. PARP inhibition values (I0.5 in mg/L) are given for 12 compds.; the best value of 7 ± 1 mg/L is for 3-styryl-4-[3-(2,6-dimethylanilino)-2-hydroxypropyl]-Δ2-1,2,4-oxadiazolin-5-one hydrochloride. The claimed compds. were found to be effective against heart ischemic failure, reperfusion arrhythmia, streptozotocin-induced type I diabetes mellitus, insulin resistance, endotoxin shock, hepatotoxicity induced by acetaminophene, toxicity of paraquat, amyotrophic lateral sclerosis, hypoxia, and Parkinson's disease. They also exhibit a cytoprotective effect (illustrated using cisplatin), inhibit carnitine-palmitoyl transferase (a key enzyme in regulation of fatty acid metabolism), and inhibit reverse transcriptase activity. R = C1-20 alkyl, Ph (optionally substituted by 1-3 substituent(s) wherein the substituent = halogen, C1-2 alkyl, C1-2 alkoxy, amino, (C1-4 alkyl)amino, di(C1-4 alkyl)amino, (C1-4 alkanoyl)amino); furthermore a 5- or 6-membered saturated or unsatd. heterocyclic group containing one or two N atom(s) or a S atom as the heteroatom and said heterocyclic group is optionally fused with one or more benzene ring(s) and/or one or more heterocyclic group(s). R' = H or R forms together with R' a C5-7 cycloalkyl group optionally fused with a benzene ring; R4 and R5 = independently H, C1-5 alkyl, C1-5 alkanoyl or Ph, which latter is optionally substituted by 1-3 substituent(s) wherein the substituent = halogen, C1-2 alkyl, C1-2 alkoxy, or R4 and R5 form together with the adjacent N atom a 5- or 6-membered saturated or unsatd. heterocyclic group that may contain a further N atom and/or an O atom and/or a S atom as the heteroatom and can be fused with a benzene ring, and the heterocyclic group and/or the benzene ring may bear one or two substituent(s) wherein the substituent = halogen, C1-2 alkyl, C1-2 alkoxy. R1 and R2 = H; R3 = H, hydroxy or C1-5 alkoxy group, or R1 forms together with R2 a carbonyl group or a thiocarbonyl group the C atom of which is bound to the O atom adjacent to R1 and to the N atom adjacent to R2, and R3 = H, halogen, hydroxy, C1-5 alkoxy, C1-5 alkylthio, C1-20 alkanoyloxy, C3-22 alkenoyloxy containing one or more double bond(s), a methylsulfonyloxy group, a phenylsulfonyloxy group or a tolylsulfonyloxy group, or R2 = H and R1 forms together with R3 a valence bond between the O atom adjacent to R1 and the C atom adjacent to R3. Various methods of preparation are claimed, including: (1) reaction of RR'C:CHC(Y):NCH2CHR3CH2NR4R5 (Y = halo, SR6 (R6 = H, C1-4 alkyl)) with hydroxylamine to give RR'C:CHC(:NOH)NHCH2CH2CH2NR4R5; (2) reaction of I (X = O, S) with aqueous alkali hydroxide to give RR'C:CHC(:NOH)NHCH2CHR3CH2NR4R5 (R3 = H, OH); (3) reaction of II with ZCH2CHR3CH2NR4R5 (Z = halo) to give I (R3 = H; X = O); (4) reaction of II with ZCH2CHR3CH2Z1 (Z, Z1 independently = halo) followed by HNR4R5 to give I (R3 = H, OH; X = O); (5) reaction of II with epichlorohydrin followed by HNR4R5 to give I (R3 = OH; X = O). (6) Reaction of III with an acid binding agent followed by reaction of the resulting epoxide with HNR4R5 to give I (R3 = OH; X = O); (7) reaction of RR'C:CHC(:NOH)NHCH2CH2CH2NR4R5 with a carbonic acid derivative Z2C(:X)Z3 (Z2, Z3 independently = halo, C1-4 alkoxy, C1-4 alkylmercapto) to give I (R3 = H, OH; X = O, S); (8) reaction of I (X = O, S; R3 = halo, methylsulfonyloxy, phenylsulfonyloxy) with an alkali hydroxide in the presence of water to give IV; (9) reaction of V (R7 = halo, methylsulfonyloxy, phenylsulfonyloxy, tolylsulfonyloxy) with HNR4R5 to give IV; reaction of II with [ZCH2CHR3CH2NR4R5R8]Y (Z = halo; R8 = C1-4 alkyl, phenyl(C1-4 alkyl); Y = halo, R8-SO4) to give [RR'C:CHC(:NOR1)NR2CH2CHR3CH2NR4R5]Y; (10) reaction of II with ZCH2CHR3CH2N(→O)R4R5 (Z = halo) to give RR'C:CHC(:NOR1)NR2CH2CHR3CH2N(→O)R4R5.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:182414 CAPLUS

DOCUMENT NUMBER: 135:17305
TITLE: Optical imaging reveals cation-Cl- cotransporter-mediated transient rapid decrease in intracellular Cl- concentration induced by oxygen-glucose deprivation in rat neocortical slices
AUTHOR(S): Yamada, Y.; Fukuda, A.; Tanaka, M.; Shimano, Y.; Nishino, H.; Muramatsu, K.; Togari, H.; Wada, Y.
CORPORATE SOURCE: Department of Pediatrics, Nagoya City University Medical School, Mizuho-ku, Nagoya, 467-8601, Japan
SOURCE: Neuroscience Research (Shannon, Ireland) (2001), 39(3), 269-280
CODEN: NERADN; ISSN: 0168-0102
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In brain slices from young (postnatal day (P) 10-15) rat somatosensory cortex, real-time neuronal intracellular Cl- concentration ([Cl-]i) recordings were made by an optical technique measuring 6-methoxy-N-ethylquinolinium iodide (MEQ) fluorescence. Oxygen-glucose deprivation (in vitro model of ischemia) induced a long-lasting [Cl-]i increase preceded by a rapid, transient [Cl-]i decrease that could not be inhibited by blockers of Cl- pumps, Cl- channels, or Cl- antiporters, but was sensitive to cation-Cl- cotransporter inhibitors (bumetanide and furosemide). Use of low external Na+ or high external K+ revealed that the Na+,K+-2Cl- cotransporter was inhibited by bumetanide and furosemide, whereas the K+-Cl- cotransporter was preferentially inhibited by furosemide under our exptl. conditions. With a reduced inward driving force for Na+ (reducing Na+,K+-2Cl- cotransport), the transient [Cl-]i decrease was only rarely induced by oxygen-glucose deprivation. In contrast, with a reduced outward driving force for K+ (reducing K+-Cl- cotransport), the transient [Cl-]i decrease still occurred. These results suggest that the transient [Cl-]i decrease was primarily mediated by a rapid inhibition of the inwardly directed Na+,K+-2Cl- cotransporter. Reverse transcriptase-polymerase chain reaction (RT-PCR) expts. suggested that the isoform involved is NKCC1. We hypothesize that the initial rapid Cl- efflux might effectively delay the irreversible Cl- influx that mediates neuronal injury.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:742369 CAPLUS
DOCUMENT NUMBER: 133:325618
TITLE: Novel transduction molecules and methods for using same
INVENTOR(S): Dowdy, Steven F.
PATENT ASSIGNEE(S): Washington University, USA
SOURCE: PCT Int. Appl., 191 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000062067	A1	20001019	WO 2000-US5097	20000228 <--
WO 2000062067	A9	20020711		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,

SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2364690	A1	20001019	CA 2000-2364690		20000228 <--
AU 2000074970	A	20001114	AU 2000-74970		20000228 <--
EP 1157275	A1	20011128	EP 2000-962058		20000228 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2003514765	T	20030422	JP 2000-611079		20000228
PRIORITY APPLN. INFO.:			US 1999-122757P	P	19990228
			US 1999-151291P	P	19990829
			WO 2000-US5097	W	20000228

OTHER SOURCE(S): MARPAT 133:325618

AB The invention relates to novel fusion mols. and methods for introducing the fusion mols. into a desired cell, tissue or organ. A fusion mol. is claimed comprising at least one protein transduction domain and at least one linked mol, wherein the linked mol. is suspected of having or has recognized capacity to treat or prevent a medical or veterinary condition in a subject mammal. The mol. linked to the fusion mol. may be a vaccine, anti-infective drug, cardiovascular drug, antitumor drug, analgesic, anti-inflammatory, diagnostic marker, or a drug for treatment or prevention of a nervous system disorder.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 28 MEDLINE on STN

ACCESSION NUMBER:	2002487993 MEDLINE
DOCUMENT NUMBER:	PubMed ID: 12213998
TITLE:	Butanedione monoxime increases the viability and yield of adult cardiomyocytes in primary cultures.
AUTHOR:	Thum T; Borlak J
CORPORATE SOURCE:	Fraunhofer Institute of Toxicology and Aerosol Research, Center for Drug Research and Medical Biotechnology, 30625 Hannover, Germany.
SOURCE:	Cardiovascular toxicology, (2001) Vol. 1, No. 1, pp. 61-72. Journal code: 101135818. ISSN: 1530-7905.
PUB. COUNTRY:	United States
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	200210
ENTRY DATE:	Entered STN: 27 Sep 2002 Last Updated on STN: 10 Oct 2002 Entered Medline: 8 Oct 2002

AB Various protocols for the isolation and cultivation of adult rat cardiomyocytes were compared, and the cytoprotective potential of the reversible myosin ATPase inhibitor butanedione monoxime (BDM) was evaluated based on cell yield, cell vitality, lactate dehydrogenase (LDH) and creatine kinase (CK) release, and the mRNA expression of atrial natriuretic peptide (ANP). Overall, a yield of 11.9 x 10(6)cells with >92% cell vitality was obtained when BDM was added to the isolation and cultivation buffers. In contrast, cell vitality ranged from 30% to 70% and cell yield was (4-10) x 10(6) when standard methods for the isolation of cardiomyocytes were used. Butanedione monoxime, at a 15 mM concentration, was cytoprotective during the isolation and cultivation of heart muscle cells, as judged by the morphological appearance (rod shape, lack of bleb formation, and other cytoskeleton defects) and the mRNA expression of the ANP gene. The activities of LDH and CK were also significantly reduced ($p < 0.05$%) when BDM was added to the isolation and

cultivation buffer. The results obtained with BDM warrant further investigation into its cytoprotective potential during ischemia and damage to the cytoskeleton.

L21 ANSWER 6 OF 28 MEDLINE on STN
ACCESSION NUMBER: 2002021248 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11451386
TITLE: Changes in HSP70 and P53 expression are related to the pattern of electromechanical alterations in rat cardiomyocytes during simulated ischemia.
AUTHOR: Laubriet A; Fantini E; Assem M; Cordelet C; Teyssier J R; Athias P; Rochette L
CORPORATE SOURCE: Laboratory of Cardiovascular Physiopathology and Pharmacology, Faculty of Medicine, University of Burgundy, Dijon, France.
SOURCE: Molecular and cellular biochemistry, (2001 Apr) Vol. 220, No. 1-2, pp. 77-86.
Journal code: 0364456. ISSN: 0300-8177.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 21 Jan 2002
Last Updated on STN: 21 Jan 2002
Entered Medline: 17 Dec 2001
AB The objective was to relate the response of the HSP70 and P53 genes to the cessation and the recovery of cardiac muscle cell functions when submitted to ischemia-reperfusion. We have measured the electromechanical activity, the released enzymes and HSP70 RNA and protein levels in cultured neonatal rat cardiomyocytes (CM) in a substrate-free, hypoxia-reoxygenation model of ischemia-reperfusion. In parallel the expression of the two genes P53 (the key apoptosis regulator gene) and P21/Waf1 (the P53 target gene) has been evaluated. The functional recovery during post-'ischemic' reoxygenation was associated with an overexpression of HSP70 and P53 lasting until the functional parameters reverted back to the normal, prehypoxic values. In contrast, extending the substrate-free hypoxic treatment worsens the dysfunction of the cardiac muscle cell and, in these conditions, reoxygenation failed to restore cell functions and to activate HSP70. Finally, in the conditions of reversible 'ischemic' cell injury, an early and transitory activation of P53 was associated with the functional recovering process of the CM submitted to simulated ischemia. These observations are suggestive of a contributive role of both HSP70 and P53 to a cytoprotective program activated by reoxygenation in post-'ischemic' CM.

L21 ANSWER 7 OF 28 MEDLINE on STN
ACCESSION NUMBER: 2001691256 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11738060
TITLE: Macrophage migration inhibitory factor as a redox-sensitive cytokine in cardiac myocytes.
AUTHOR: Takahashi M; Nishihira J; Shimpo M; Mizue Y; Ueno S; Mano H; Kobayashi E; Ikeda U; Shimada K
CORPORATE SOURCE: Division of Cardiology, Jichi Medical School, Tochigi, Japan.. masafumi@jichi.ac.jp
SOURCE: Cardiovascular research, (2001 Dec) Vol. 52, No. 3, pp. 438-45.
Journal code: 0077427. ISSN: 0008-6363.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 13 Dec 2001
Last Updated on STN: 19 Dec 2002
Entered Medline: 19 Feb 2002

AB OBJECTIVE: Macrophage migration inhibitory factor (MIF), which plays a pivotal role in the control of inflammatory responses, was first characterized as a T-cell cytokine, but later was also found as a pituitary peptide released in response to infection and stress. However, MIF's role and expression in the myocardium has never been reported. The goal of this study is to examine MIF in the myocardium. METHODS AND RESULTS: MIF protein and mRNA levels were assayed using enzyme-linked immunosorbent assay (ELISA) and reverse transcription-polymerase chain reaction (RT-PCR), respectively. Increased MIF concentrations were detected in the sera of patients with acute myocardial infarction (AMI). In cultured rat cardiac myocytes, significant amounts of MIF were produced in response to hypoxia and hydrogen peroxide (H(2)O(2)), but not to angiotensin II, endothelin-1, interleukin-1beta (IL-1beta) or tumor necrosis factor alpha (TNFalpha). H(2)O(2)-induced MIF production increased in a time- and dose-dependent manner and was completely abolished in the presence of catalase. H(2)O(2) also induced MIF mRNA expression. The H(2)O(2)-induced MIF production was completely inhibited by the protein kinase C (PKC) inhibitor GF109203X, partially inhibited by the tyrosine kinase inhibitor herbimycin A, and uninhibited by calcium chelation or phorbol ester-sensitive PKC down-regulation. This suggests that H(2)O(2)-induced MIF production is mediated by an atypical PKC isoform. DNA microarray analysis revealed that 52 genes were preferentially expressed in response to MIF. Of these, the MIF-induced expression of both glutathione S-transferase (GST) and lipopolysaccharide-induced CXC chemokine (LIX) mRNAs was confirmed using RT-PCR analysis. CONCLUSION: The present results suggest that MIF is expressed by the myocardium in response to redox stress and may play a role in the pathogenesis of myocardial ischemia.

L21 ANSWER 8 OF 28 MEDLINE on STN
ACCESSION NUMBER: 2001689183 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11708838
TITLE: Role of STAT3 in ischemic preconditioning.
AUTHOR: Hattori R; Maulik N; Otani H; Zhu L; Cordis G; Engelman R M; Siddiqui M A; Das D K
CORPORATE SOURCE: Cardiovascular Research Center, University of Connecticut School of Medicine, Farmington, CT 06030-1110, USA.
CONTRACT NUMBER: HL 22559 (United States NHLBI)
HL 33889 (United States NHLBI)
HL 34360 (United States NHLBI)
HL 56803 (United States NHLBI)
SOURCE: Journal of molecular and cellular cardiology, (2001 Nov) Vol. 33, No. 11, pp. 1929-36.
Journal code: 0262322. ISSN: 0022-2828.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 11 Dec 2001
Last Updated on STN: 15 Feb 2002
Entered Medline: 14 Feb 2002

AB We recently demonstrated that ischemic preconditioning (IPC) induced by cyclic episodes of short durations of ischemia and

reperfusion potentiates a signal transduction cascade involving protein tyrosine kinases and MAP kinases. A rapid activation of janus kinase (JAK) and several signal transducers and activators of the transcription (STATs) including STAT3, STAT5A and STAT6 has been shown to occur during myocardial ischemia and reperfusion. This study sought to examine if JAK/STAT signaling pathway play any role in classical early phase of IPC. Isolated working rat hearts were perfused for 15 min with KHB buffer in the absence or presence of a JAK kinase inhibitor tyrphostin AG490 (5 microm) followed by IPC, 30 min global ischemia and 2 h of reperfusion. The results demonstrated extensive phosphorylation of JAK2 and STAT3 in the IPC hearts which was almost completely abolished by an inhibitor of JAK2, AG490. IPC displayed cardioprotection as evidenced by improved post-ischemic contractile recovery, decreased myocardial infarct size and reduced number of apoptotic cardiomyocytes. AG490 blocked IPC-mediated cardioprotection by altering the IPC-mediated survival signal into death signal. Thus, IPC-induced upregulation of antiapoptotic gene bcl-2 and downregulation of pro-apoptotic gene bax are decreased and increased, respectively, in the AG490 treated hearts. The results suggest that early phase of IPC potentiates JAK/STAT signaling by activating STAT3 which transmits a survival signal to the myocardium.
Copyright 2001 Academic Press.

L21 ANSWER 9 OF 28 MEDLINE on STN
ACCESSION NUMBER: 2001522000 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11567657
TITLE: Ischemic preconditioning, the most effective gastroprotective intervention: involvement of prostaglandins, nitric oxide, adenosine and sensory nerves.
AUTHOR: Pajdo R; Brzozowski T; Konturek P C; Kwiecien S; Konturek S J; Sliwowski Z; Pawlik M; Ptak A; Drozdowicz D; Hahn E G
CORPORATE SOURCE: Department of Physiology, Jagiellonian University School of Medicine, 16 Grzegorzecka St., 31-531 Cracow, Poland.
SOURCE: European journal of pharmacology, (2001 Sep 21) Vol. 427, No. 3, pp. 263-76. Journal code: 1254354. ISSN: 0014-2999.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200111
ENTRY DATE: Entered STN: 25 Sep 2001
Last Updated on STN: 5 Nov 2001
Entered Medline: 1 Nov 2001

AB Various organs, including heart, kidneys, liver or brain, respond to brief exposures to ischemia with an increased resistance to severe ischemia/reperfusion and this phenomenon is called "preconditioning". No study so far has been undertaken to check whether such short, repeated gastric ischemic episodes protect gastric mucosa against severe damage caused by subsequent prolonged ischemia/reperfusion and, if so, what could be the mechanism of this phenomenon. The ischemic preconditioning was induced by short episodes of gastric ischemia (occlusion of celiac artery from one to five times, for 5 min each) applied 30 min before prolonged (30 min) ischemia followed by 3 h of reperfusion or 30 min before topical application of strong mucosal irritants, such as 100% ethanol, 25% NaCl or 80 mM taurocholate. Exposure to regular 30-min ischemia, followed by 3-h reperfusion, produced numerous severe gastric lesions and significant fall in the gastric blood flow and prostaglandin E(2) generation. Short (5-min) ischemic episodes (1-5 times) by itself failed to cause any gastric lesions, but significantly attenuated those produced by ischemia/reperfusion.

This protection was accompanied by a reversal of the fall in the gastric blood flow and prostaglandin E(2) generation and resembled that induced by classic gastric mild irritants. These protective and hyperemic effects of standard preconditioning were significantly attenuated by pretreatment with cyclooxygenase-2 and cyclooxygenase-1 inhibitors, such as indomethacin, Vioxx, resveratrol and nitric oxide (NO)-synthase inhibitor, N(G)-nitro-L-arginine (L-NNA). The protective and hyperemic effects of standard preconditioning were restored by addition of 16,16 dm prostaglandin E(2) or L-arginine, a substrate for NO synthase, respectively. Gastroprotective and hyperemic actions of standard ischemic preconditioning were abolished by pretreatment with capsaicin-inactivating sensory nerves, but restored by the administration of exogenous CGRP to capsaicin-treated animals. Gene and protein expression of cyclooxygenase-1, but not cyclooxygenase-2, were detected in intact gastric mucosa and in that exposed to ischemia /reperfusion with or without ischemic preconditioning, whereas cyclooxygenase-2 was overexpressed only in preconditioned mucosa. We conclude that: (1) gastric ischemic preconditioning represents one of the most powerful protective interventions against the mucosal damage induced by severe ischemia/reperfusion as well as by topical mucosal irritants in the stomach; (2) gastric ischemic preconditioning resembles the protective effect of "mild irritants" against the damage by necrotizing substances in the stomach acting via "adaptive cytoprotection" and involves several mediators, such as prostaglandin derived from cyclooxygenase-1 and cyclooxygenase-2, NO originating from NO synthase and sensory nerves that appear to play a key mechanism of gastric ischemic preconditioning.

L21 ANSWER 10 OF 28 MEDLINE on STN

ACCESSION NUMBER:	2001505590 MEDLINE
DOCUMENT NUMBER:	PubMed ID: 11226333
TITLE:	Inhibition of caspase 1 reduces human myocardial ischemic dysfunction via inhibition of IL-18 and IL-1beta.
AUTHOR:	Pomerantz B J; Reznikov L L; Harken A H; Dinarello C A
CORPORATE SOURCE:	Department of Surgery, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262, USA.
CONTRACT NUMBER:	AI-15614 (United States NIAID) GM-4922 (United States NIGMS)
SOURCE:	Proceedings of the National Academy of Sciences of the United States of America, (2001 Feb 27) Vol. 98, No. 5, pp. 2871-6. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY:	United States
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	200109
ENTRY DATE:	Entered STN: 17 Sep 2001 Last Updated on STN: 17 Sep 2001 Entered Medline: 13 Sep 2001

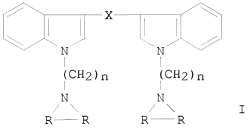
AB The proinflammatory cytokine IL-18 was investigated for its role in human myocardial function. An ischemia/reperfusion (I/R) model of suprafused human atrial myocardium was used to assess myocardial contractile force. Addition of IL-18 binding protein (IL-18BP), the constitutive inhibitor of IL-18 activity, to the perifusate during and after I/R resulted in improved contractile function after I/R from 35% of control to 76% with IL-18BP. IL-18BP treatment also preserved intracellular tissue creatine kinase levels (by 420%). Steady-state mRNA levels for IL-18 were elevated after I/R, and the concentration of IL-18

in myocardial homogenates was increased (control, 5.8 pg/mg vs. I/R, 26 pg/mg; P < 0.01). Active IL-18 requires cleavage of its precursor form by the IL-1beta-converting enzyme (caspase 1); inhibition of caspase 1 also attenuated the depression in contractile force after I/R (from 35% of control to 75.8% in treated atrial muscle; P < 0.01). Because caspase 1 also cleaves the precursor IL-1beta, IL-1 receptor blockade was accomplished by using the IL-1 receptor antagonist. IL-1 receptor antagonist added to the perifusate also resulted in a reduction of ischemia-induced contractile dysfunction. These studies demonstrate that endogenous IL-18 and IL-1beta play a significant role in I/R-induced human myocardial injury and that inhibition of caspase 1 reduces the processing of endogenous precursors of IL-18 and IL-1beta and thereby prevents ischemia-induced myocardial dysfunction.

```
=> d hist

     (FILE 'HOME' ENTERED AT 10:25:44 ON 08 MAR 2008)

     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:26:10 ON 08 MAR 2008
L1       738854 S ISCHEM?
L2        15168 S AZT
L3           15 S L1 AND L2
L4           14 DUP REM L3 (1 DUPLICATE REMOVED)
L5        28542 S RIBAVIRIN
L6          115 S L5 AND L1
L7          102 DUP REM L6 (13 DUPLICATES REMOVED)
L8            0 S L7 AND REVERSE (W) TRANSCRIPTASE
L9       249696 S  REVERSE (W) TRANSCRIPTASE
L10        2520 S L9 AND L1
L11         500 S L10 AND INHIBITOR
L12         453 S L11 NOT HIV
L13         448 S L12 NOT AIDS
L14         362 DUP REM L13 (86 DUPLICATES REMOVED)
L15          78 S L14 AND PY<=2001
L16          56 S L15 AND PY<=2000
L17           7 S L7 AND PY<=2000
L18           6 S L4 AND PY<=2001
L19         411 DUP REM L11 (89 DUPLICATES REMOVED)
L20          84 S L19 AND PY<=2001
L21          28 S L20 NOT L16

=> s l20 not l15
L22           6 L20 NOT L15

=> d ibib abs 1-6

L22  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:339553  CAPLUS
DOCUMENT NUMBER:          146:500884
TITLE:                    Process for producing indolyl-methane compounds and
                          pharmaceutical compositions for inhibiting
                          transcriptase enzyme
INVENTOR(S):              Hegyes, Peter; Toeroecsik, Mihaly
PATENT ASSIGNEE(S):       Hung.
SOURCE:                   Hung. Pat. Appl., 20pp.
                          CODEN: HUXXCV
DOCUMENT TYPE:            Patent
LANGUAGE:                 Hungarian
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
HU 9801781	A2	20000528	HU 1998-1781	19980803 <--
HU 9801781	A3	20000828		

PRIORITY APPLN. INFO.: HU 1998-1781 19980803
OTHER SOURCE(S): MARPAT 146:500884
GI



I

AB The subject of the invention is a pharmaceutical composition to treat the symptoms of ischemic diseases, or symptoms as a result of brain hemorrhage, epilepsy or migraine. As its active ingredient, the composition contains indolyl-methane derivs. I were prepared, wherein R is H, substituted Ph, substituted phenoxy, substituted benzoyl; NRR group forms heterocycle; X is O, N, methylene; n is 1-2. Alternatively, the composition may contain the pharmaceutically applicable salt of the compound Thus, 1,1'-bis-piperidino-methyl-3,3'-diindolyl-methane was prepared by condensation of diindolylmethane with formaldehyde and piperidine in 76% yield. Title compds. were prepared and tested against HIV-1 and HIV-2 as anti-AIDS antiviral agents.

L22 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:742369 CAPLUS
DOCUMENT NUMBER: 133:325618
TITLE: Novel transduction molecules and methods for using same
INVENTOR(S): Dowdy, Steven F.
PATENT ASSIGNEE(S): Washington University, USA
SOURCE: PCT Int. Appl., 191 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000062067	A1	20001019	WO 2000-US5097	20000228 <--
WO 2000062067	A9	20020711		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2364690	A1	20001019	CA 2000-2364690	20000228 <--
AU 2000074970	A	20001114	AU 2000-74970	20000228 <--

EP 1157275 A1 20011128 EP 2000-962058 20000228 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2003514765 T 20030422 JP 2000-611079 20000228
PRIORITY APPLN. INFO.: US 1999-122757P P 19990228
US 1999-151291P P 19990829
WO 2000-US5097 W 20000228
OTHER SOURCE(S): MARPAT 133:325618
AB The invention relates to novel fusion mols. and methods for introducing the fusion mols. into a desired cell, tissue or organ. A fusion mol. is claimed comprising at least one protein transduction domain and at least one linked mol, wherein the linked mol. is suspected of having or has recognized capacity to treat or prevent a medical or veterinary condition in a subject mammal. The mol. linked to the fusion mol. may be a vaccine, anti-infective drug, cardiovascular drug, antitumor drug, analgesic, anti-inflammatory, diagnostic marker, or a drug for treatment or prevention of a nervous system disorder.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 6 MEDLINE on STN
ACCESSION NUMBER: 2000504264 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11051780
TITLE: Current HIV therapy and its clinical problems.
AUTHOR: Oka S
CORPORATE SOURCE: AIDS Clinical Center, International Medical Center of Japan, Tokyo.
SOURCE: Rinsho byori. The Japanese journal of clinical pathology, (2000 Jul) Vol. 48, No. 7, pp. 575-9.
Journal code: 2984781R. ISSN: 0047-1860.
PUB. COUNTRY: Japan
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200011
ENTRY DATE: Entered STN: 22 Mar 2001
Last Updated on STN: 22 Mar 2001
Entered Medline: 24 Nov 2000
AB HIV-specific protease inhibitors(PI) have been available in Japan since 1997. Since then, highly active anti-retroviral therapy(HAART) including two reverse transcriptase inhibitors combined with PI became the main strategy of HIV treatment. After introducing HAART, incidence of most opportunistic infections dramatically decreased, resulted a steep decline of AIDS death in Japan as well as in the United States. However, several unexpected problems related to HAART have been coming up. One is a lipodystrophy syndrome(LDS) which is a novel side effect caused by PI. Lipid disposition was noted associated with hyperlipidemia and/or hyperglycemia. Ischemic heart diseases will emerge in patients with LDS in future. Another one is inflammatory reactions to some opportunistic pathogens, such as Mycobacteria, Pneumocystis carinii, cryptococcus, and so on, occurred during course of immune reconstitution after HAART. This reaction is sometimes too severe to continue HAART and corticosteroid is often required to control the reaction. How to diagnose and how to manage the reaction are to be determined in future.

L22 ANSWER 4 OF 6 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:362655 BIOSIS
DOCUMENT NUMBER: PREV200000362655
TITLE: Neurologic disease in injection drug users: Therapeutic approaches.

AUTHOR(S): Royal, Walter, III
SOURCE: Journal of Neurovirology, (May, 2000) Vol. 6, No. Supplement 1, pp. S124. print.
Meeting Info.: HIV and the Nervous System: Emerging Issues. Bethesda, Maryland, USA. April 14-16, 1999. National Institute of Mental Health.
ISSN: 1355-0284.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Aug 2000
Last Updated on STN: 8 Jan 2002

L22 ANSWER 5 OF 6 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2001427457 EMBASE
TITLE: Lipodystrophy syndrome: Diagnostic, clinic and therapeutic aspects.
AUTHOR: Blanco F.; Carr A.
CORPORATE SOURCE: F. Blanco, Service of Infectious Disease, Instituto de salud Carlos III, Calle Sinesio Delgado 10, 28029 Madrid, Spain
SOURCE: AIDS Reviews, (2001) Vol. 3, No. 2, pp. 98-105.
Refs: 93
ISSN: 1139-6121 CODEN: ADRVF6
COUNTRY: Spain
DOCUMENT TYPE: Journal; General Review; (Review)
FILE SEGMENT: 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
038 Adverse Reactions Titles
037 Drug Literature Index
030 Clinical and Experimental Pharmacology
029 Clinical and Experimental Biochemistry
026 Immunology, Serology and Transplantation
017 Public Health, Social Medicine and Epidemiology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20 Dec 2001
Last Updated on STN: 20 Dec 2001

AB Lipodystrophy (LD) in HIV-infected patients receiving HAART is a novel, polymorfic clinical entity that needs to be clearly defined. Its prevalence and diagnosis are not well established so far. It includes several disturbances, such as lipoatrophy and fat accumulation at different sites, and lipid and glucose metabolism alterations, including hyperlipidaemia, insulin resistance and lactic acidaemia. Several factors have been implicated, and no single etiological hypothesis has been able to account for the wide range of clinical manifestations. In fact, different entities could be underlying the process. However, little doubts remain as to the crucial role being played by protease inhibitors (PI) and nucleoside reverse transcriptase inhibitors (NRTI). Objective criteria to assess body-shape changes have not been defined. Morphological changes have psychological, social and treatment-adherence consequences, and there are very few therapeutic options currently available. Metabolic abnormalities may increase cardiovascular risk over the long term in some patients. A higher rate of coronary events and atherosclerotic disease in HIV+ patients under HAART are of great concern. For this reason, an adequate management of these disorders is decisive, to prevent cardiovascular morbidity and mortality in the future. Lactic acidaemia is a frequent complication associated with NRTI, but its clinical relevance is uncertain at the moment. Its most severe presentation is lactic acidosis, which requires a prompt diagnosis and treatment, given its fatal

prognosis. Finally, less toxic antiretroviral strategies and/or a delay in its prescription might be warranted.

L22 ANSWER 6 OF 6 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2000245023 EMBASE
TITLE: Impact of highly active antiretroviral therapy in HIV-positive patients with cardiac involvement.
AUTHOR: Pugliese A.; Isnardi D.; Saini A.; Scarabelli T.; Raddino R.; Torre D.
CORPORATE SOURCE: D. Torre, Division of Infectious Diseases, Regional Hospital, Viale Borri 57, 21100 Varese, Italy
SOURCE: Journal of Infection, (May 2000) Vol. 40, No. 3, pp. 282-284.
Refs: 12
ISSN: 0163-4453 CODEN: JINFD2
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Jul 2000
Last Updated on STN: 27 Jul 2000

AB Objectives: Cardiac involvement is frequently observed in HIV-infected patients, especially in those in the late stage of the disease. This study was designed to evaluate the impact of highly active antiretroviral therapy (HAART) in patients with cardiac involvement. Methods: A retrospective study of 1042 patients admitted to a Division of Infectious Diseases between 1989 and 1998. During the period 1989-1995, 544 patients were treated with nucleoside reverse transcriptase inhibitors (NRTI), whereas 498 patients were treated with HAART during the period 1996-1998. Results: Cardiac involvement, including arrhythmias, pericarditis, ischaemia, dilated cardiomyopathy, endocarditis, pulmonary hypertension, and myocarditis were observed in 282 of 544 (51.8%) patients treated with NRTI, compared with 93 of 498 (18.6%) patients with HAART (P < 0.0001). Conclusions: HAART has significantly decreased the incidence of cardiac involvement, especially pericarditis, arrhythmias, and dilated cardiomyopathy. (C) 2000 The British Infection Society.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	164.76	164.97
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-18.40	-18.40

FILE 'STNGUIDE' ENTERED AT 10:58:17 ON 08 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 29, 2008 (20080229/UP).

=> d hist

(FILE 'HOME' ENTERED AT 10:25:44 ON 08 MAR 2008)

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:26:10 ON 08 MAR 2008

```
L1        738854 S ISCHEM?
L2         15168 S AZT
L3            15 S L1 AND L2
L4            14 DUP REM L3 (1 DUPLICATE REMOVED)
L5         28542 S RIBAVIRIN
L6           115 S L5 AND L1
L7           102 DUP REM L6 (13 DUPLICATES REMOVED)
L8             0 S L7 AND REVERSE (W) TRANSCRIPTASE
L9        249696 S  REVERSE (W) TRANSCRIPTASE
L10         2520 S L9 AND L1
L11          500 S L10 AND INHIBITOR
L12          453 S L11 NOT HIV
L13          448 S L12 NOT AIDS
L14          362 DUP REM L13 (86 DUPLICATES REMOVED)
L15           78 S L14 AND PY<=2001
L16           56 S L15 AND PY<=2000
L17            7 S L7 AND PY<=2000
L18            6 S L4 AND PY<=2001
L19          411 DUP REM L11 (89 DUPLICATES REMOVED)
L20           84 S L19 AND PY<=2001
L21           28 S L20 NOT L16
L22            6 S L20 NOT L15
```

FILE 'STNGUIDE' ENTERED AT 10:58:17 ON 08 MAR 2008

```
=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.84     165.81

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -18.40

STN INTERNATIONAL LOGOFF AT 11:06:55 ON 08 MAR 2008
```